Initial Study

Butterfield Boulevard South Extension Project

Modifications to the Sutter Boulevard Extension & Flood Protection Facilities Project Evaluated in the 1992 FEIR and 2005 Addendum to the FEIR

File Number: EA 10-07

City of Morgan Hill

June 2010

TABLE OF CONTENTS

TABLE OF CONTENTS

FIGURES

PHOTOS

APPENDICES

SECTION 1 INTRODUCTION AND PURPOSE

This Initial Study of environmental impacts is being prepared to conform to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 *et.seq.*) and regulations and policies of the City of Morgan Hill, California.

This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from changes to the Butterfield Boulevard South Extension Project (referred to as the "project" hereafter).

SECTION 2 PROJECT INFORMATION

2.1 PROJECT TITLE

Butterfield Boulevard South Extension Project

2.2 PROJECT LOCATION

Proposed roadway construction is located north, south, east and west of the current intersection of Watsonville Road and Monterey Road, where the proposed alignment of Butterfield Boulevard is to be constructed. The area is located within the City of Morgan Hill and unincorporated areas of Santa Clara County (refer to Figures 1 and 3).

A proposed Regional Detention Basin is bounded by Railroad Avenue and Seymour Avenue which run in a north-south direction, and bounded along the northern edge by Maple Avenue. The southern edge is generally bounded by Pollard Avenue. The proposed Regional Detention Basin is located within unincorporated Santa Clara County in an area known as the San Martin Planning Area (refer to Figures 1 and 3).

2.3 LEAD AGENCY NAME AND ADDRESS

David Gittleson, Associate Engineer
City of Morgan Hill
Department of Public Works
17575 Peak Avenue
Morgan Hill, CA 95037
(408) 778-6480

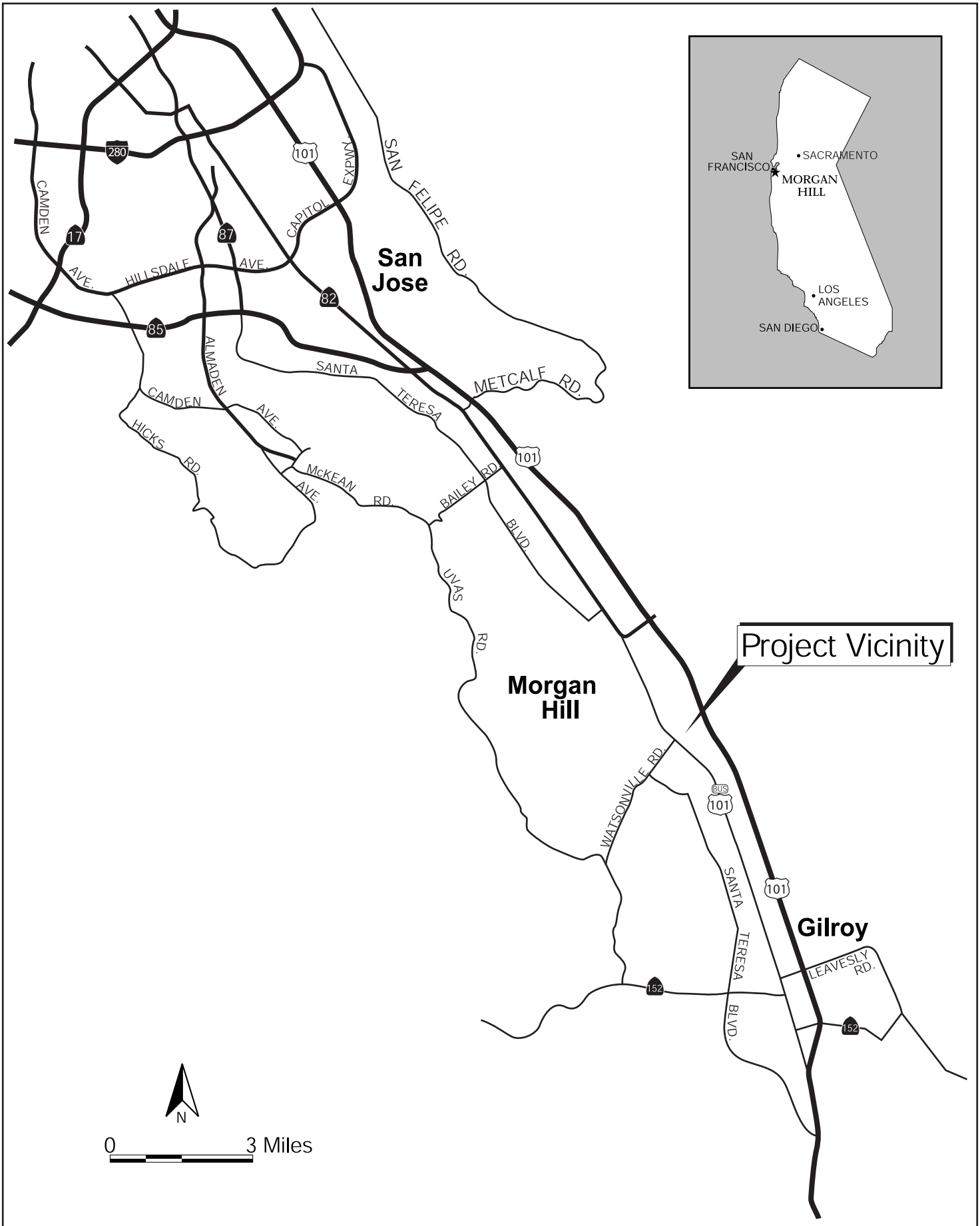
2.4 ASSESSOR'S PARCEL NUMBERS

817-06-004, 817-06-002, 779-04-001, 779-04-056, 817-06-001 (Watsonville/Monterey Intersection)

825-06-034, 825-06-035, 825-06-038 (Regional Detention Basin)

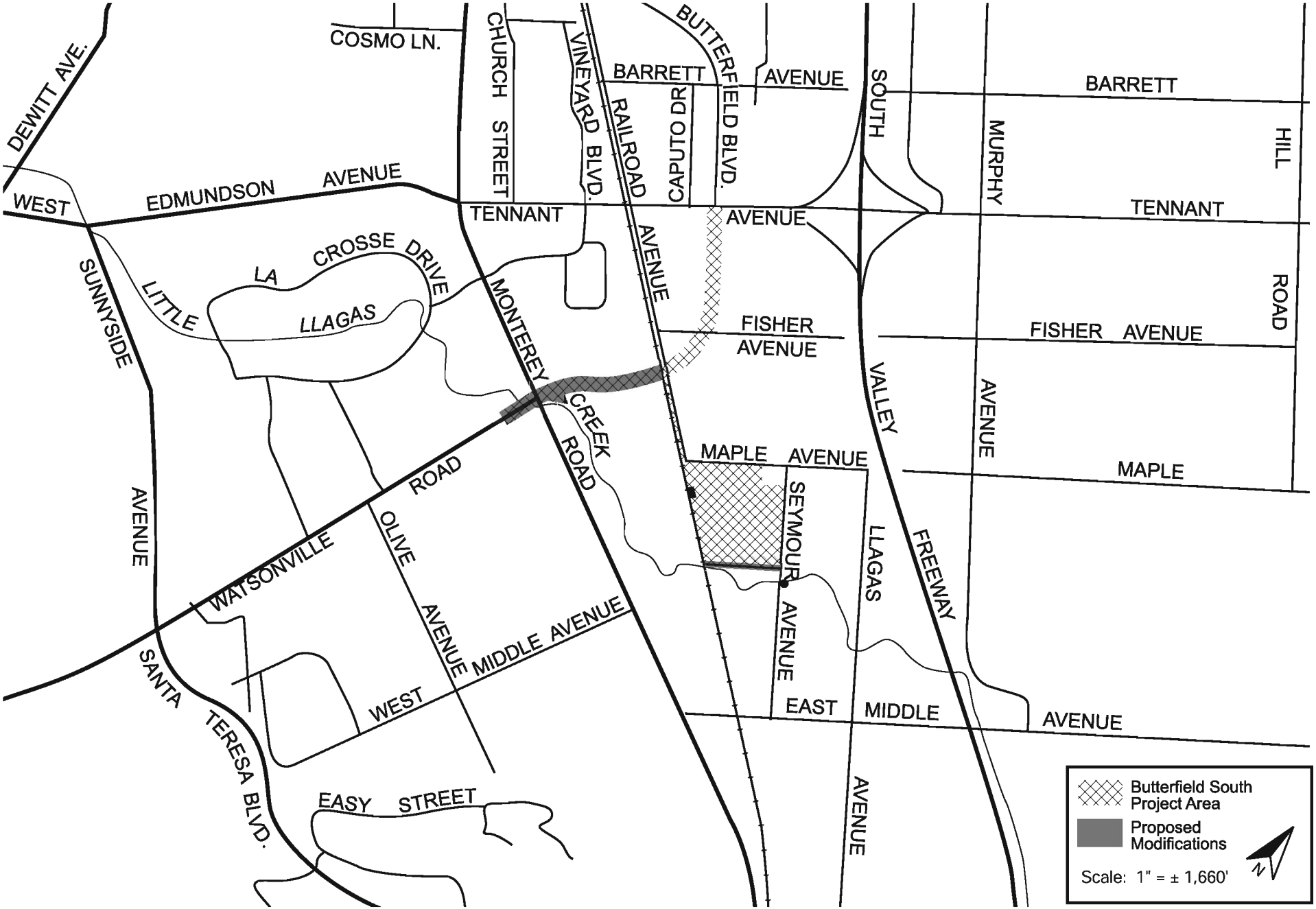
2.5 ZONING DISTRICT AND GENERAL PLAN DESIGNATIONS

Morgan Hill Zoning:	*Light Industrial District*
Morgan Hill General Plan Designation**:**	*Industrial*
County of Santa Clara Zoning:	*Agricultural*
County of Santa Clara General Plan Designation:	*Agricultural Medium Scale*



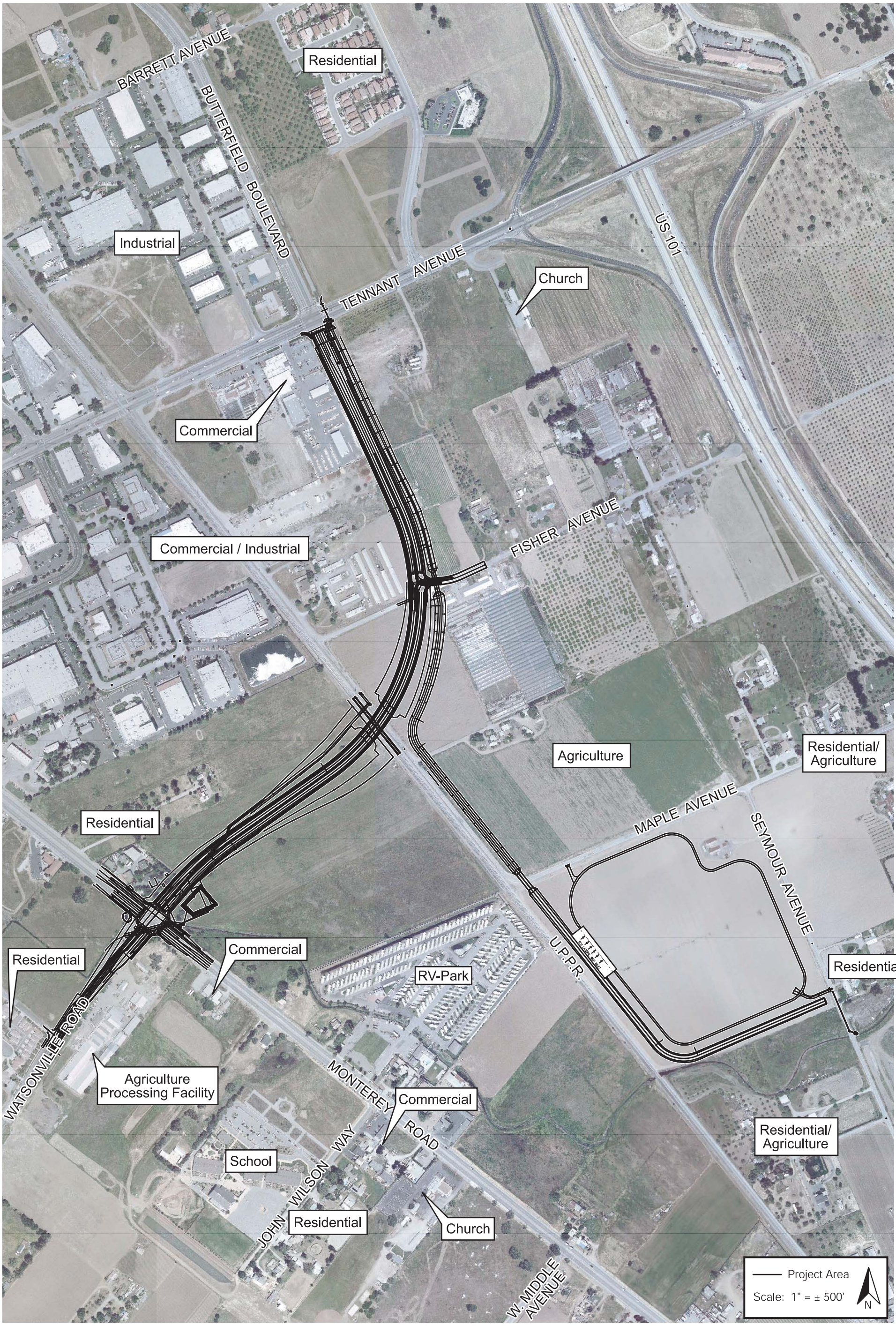
REGIONAL MAP

FIGURE 1



VICINITY MAP

FIGURE 2



AERIAL PHOTOGRAPH WITH SURROUNDING LAND USES

FIGURE 3

SECTION 3 PROJECT DESCRIPTION

3.1 OVERVIEW AND BACKGROUND

Butterfield Boulevard is designated as an arterial on the City of Morgan Hill's Circulation Element Map and it is one of the primary north-south roadways in the City. Currently, Butterfield Boulevard is a four-lane, divided arterial that extends from Cochrane Road southward to Tennant Avenue.

The Butterfield South Extension is the next phase of the planned construction of Butterfield Boulevard. Originally planned as a four to six lane roadway, the Butterfield South Extension would be four lanes wide and includes construction of an overcrossing of the Union Pacific Railroad (UPRR) tracks and flood protection improvements.

Butterfield Boulevard originally was planned to be called Sutter Boulevard and the environmental impacts of constructing the roadway were addressed in the "Sutter Boulevard Extension & Flood Protection Facilities" Final EIR (1992 FEIR). This certified Final EIR evaluated the extension of an arterial roadway from Cochrane Road to Middle Avenue, the extension of Watsonville Road to the new roadway, and the construction of a drainage channel on the eastern side of the arterial roadway that would empty into a 27.6 acre detention basin located between Maple Avenue and Pollard Avenue. As stated in the 1992 FEIR, the project would be phased and the portion of the project south of Tennant Avenue (including the detention pond and the Watsonville Road connection) was not anticipated to be completed before 2010.

In 1992, the Morgan Hill City Council approved a plan line for Butterfield (Sutter) Boulevard and the drainage channel from Cochrane Road to Tennant Avenue. The construction of Butterfield Boulevard and the drainage channel is complete from Cochrane Road to Tennant Avenue. The roadway and channel currently end approximately 50 feet south of Tennant Avenue.

In 2005, an Addendum to the 1992 FEIR was prepared that addressed modifications to the roadway project south of Tennant Avenue. The project evaluated in 2005 would connect Butterfield Boulevard to Watsonville Road and complete the construction of the Butterfield Channel and detention basin. The project was identical to the project evaluated in the 1992 FEIR, except for the following modifications: 1) the number of vehicle travel lanes on the Watsonville Road extension was increased from two lanes to three lanes in each direction to Monterey Road; 2) the planned Butterfield Boulevard at-grade crossing of the existing Union Pacific Railroad (UPRR) line was replaced with an overcrossing; and 3) the alignment of Watsonville Road was slightly modified to create a continuous connection with Butterfield Boulevard.

The project currently proposes to shift the Butterfield Boulevard alignment to the south near Monterey Road and widen Watsonville Road further to the southeast, which would impact a short segment of West Little Llagas Creek. There also would be outlets to West Little Llagas Creek from the planned detention pond and an additional local detention pond southeast of the new intersection that would collect runoff from the area of the Butterfield Boulevard extension between the UPRR tracks and Monterey Road.

3.2 PROJECT DESCRIPTION

3.2.1 Modifications to the Butterfield South Extension Planline

The proposed project involves modifications to the plan line for the Watsonville Road alignment near Monterey Road and acquisition of right-of-way to complete the Butterfield Boulevard improvements. The modifications to the Watsonville Road alignment would generally widen the road as it approaches Monterey Road and shift the overall road south.

3.2.1.1 *Roadway Alignment Shift and Watsonville Road Modifications*

Under the proposed project, the planned alignment of Butterfield Boulevard between the UPRR tracks and Monterey Road would shift southward to minimize impacts to an existing developed parcel near Monterey Road (Figure 4).

Watsonville Road would be widened and shifted to the south, starting approximately 900 feet west of the Watsonville/Monterey Road intersection (Figure 4). An existing drainage ditch that conveys stormwater runoff from adjacent properties and the roadway would be reconstructed adjacent to the realigned roadway with flows conveyed to an 18-inch pipe that will discharge to a new box culvert under Watsonville Road.

3.2.2 Modifications to Planned Stormwater Drainage Facilities

3.2.2.1 *Modifications to West Little Llagas Creek*

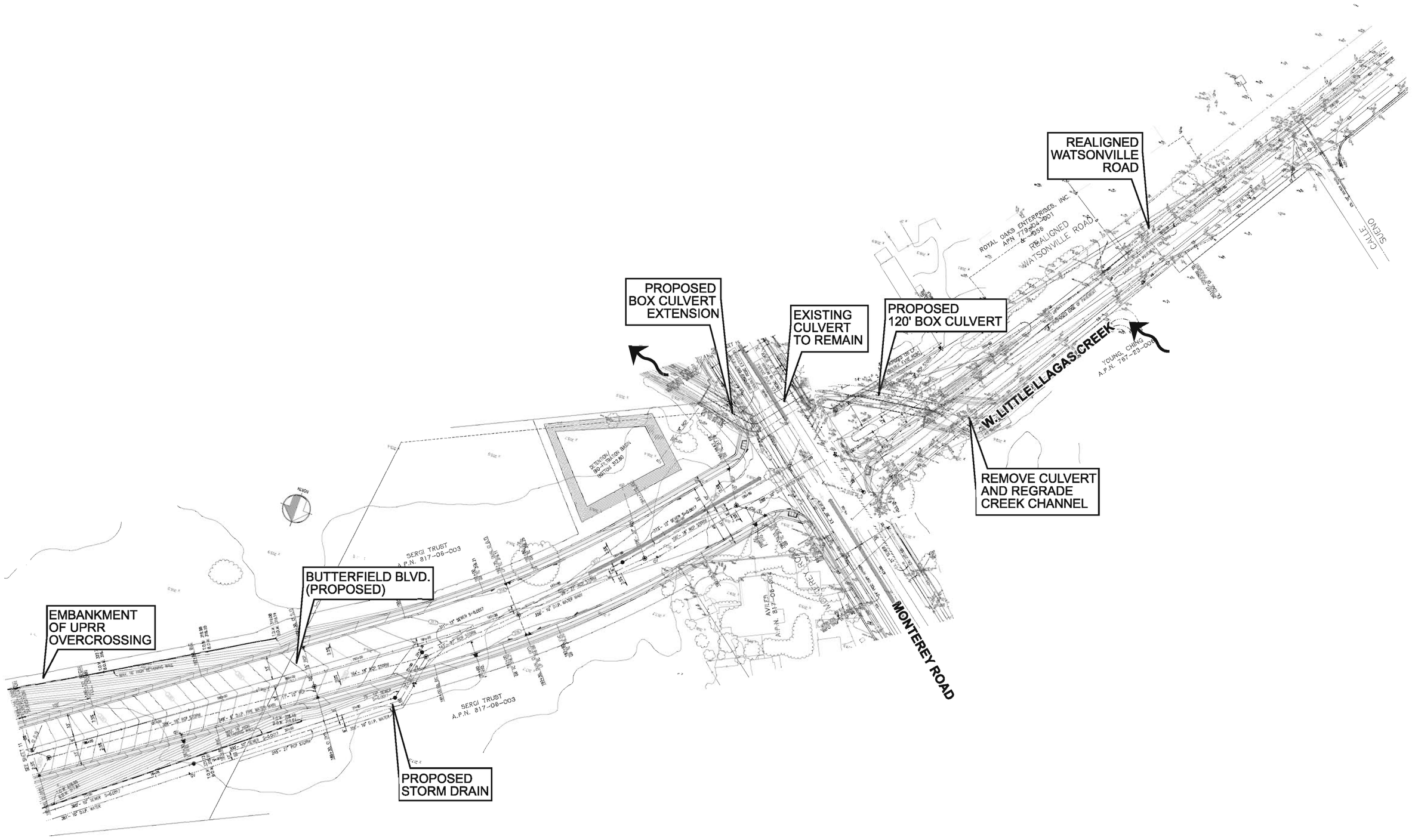
The project proposes modifications to the section of West Little Llagas Creek which runs from west of Watsonville Road downstream to where it exits underneath eastward underneath Monterey Road. These modifications include grading the creek for approximately 300-feet west of Watsonville Road up to the smaller current box culvert, which will be replaced with a larger double-culvert that will run the length of the widened road (approximately 100-feet). A portion of the creek channel between Watsonville and Monterey Roads will be removed to accommodate the new widened road and double-culvert.

The remaining section of creek not being replaced, between Watsonville Road and Monterey Road, would be modified on the north bank to create a permanent vertical wall in-line with the edge of the widened roadway (Figure 4). The south bank will not be graded or modified. The channel will remain open at this location to allow for split flows to continue; a portion of the flow into the culvert under Monterey Road and a portion flowing overland parallel to the south side of Monterey Road.

To the east of Monterey Road the project proposes to extend the current double-culvert approximately 75-feet and to grade the West Little Llagas Creek for approximately 300-feet. These improvements would reduce the flooding of Watsonville Road to a less frequent biennial event.

3.2.2.2 *New Local Detention Basin*

The project proposes to construct a local detention/bio-filtration basin near the southeast corner of Butterfield Road and Monterey Road (Figure 4). This basin would receive stormwater runoff from the crest of the Butterfield Boulevard extension over the UPRR tracks as well as portions of surrounding properties, draining a total area of 26.8-acres. The basin will be designed to detain and filter runoff, discharging to West Little Llagas Creek via an 18” pipe after 72 hours.



DESIGN PLAN : WATSONVILLE / MONTEREY INTERSECTION

FIGURE 4

3.2.2.3 *Butterfield Channel and Regional Detention Facility*

The Butterfield Channel, which receives stormwater runoff from the existing Butterfield Boulevard and an approximately 1,608-acre area of Morgan Hill, will be extended from its existing terminus near Tennant Road to a new Regional Detention Facility (Figure 5).

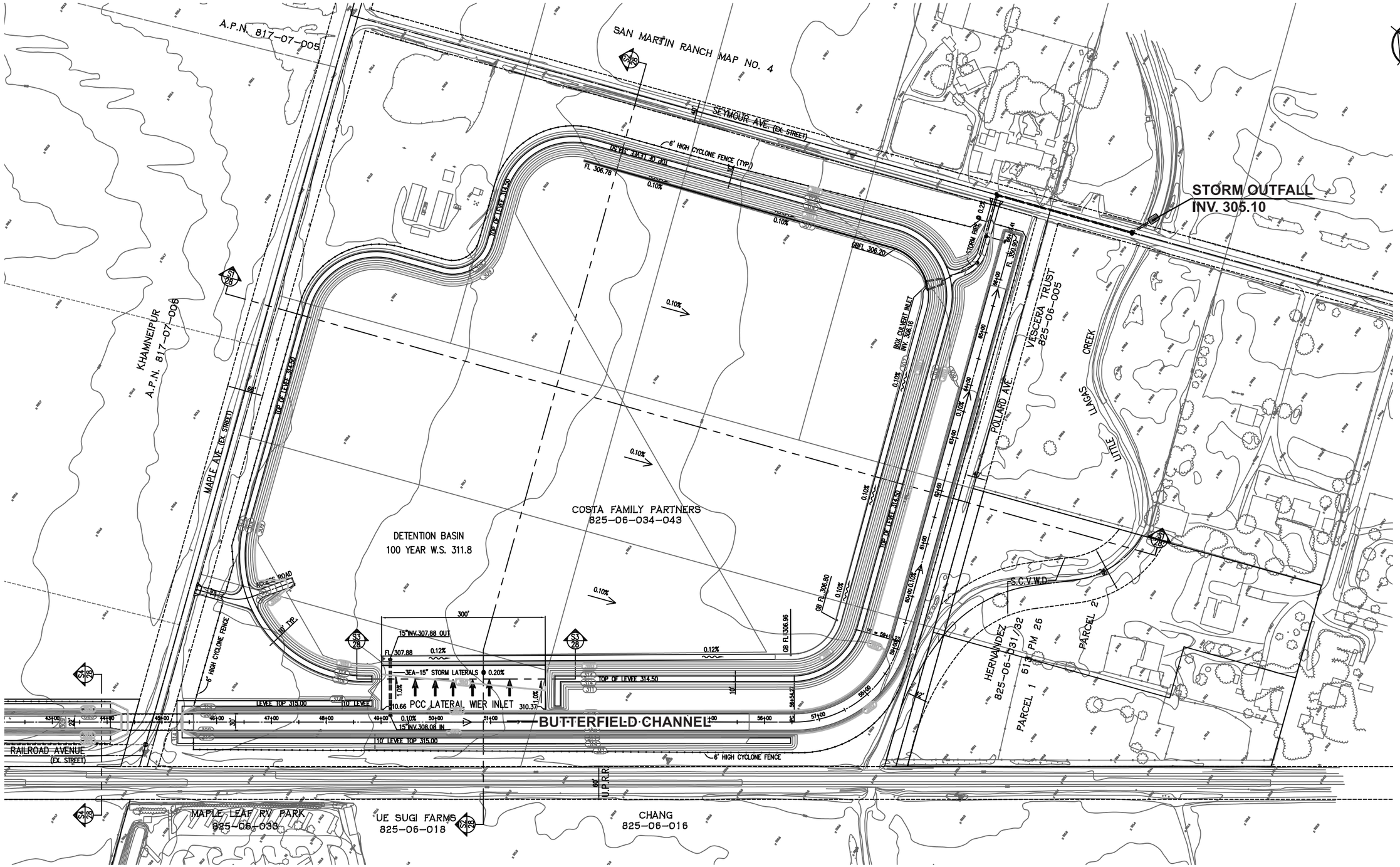
The proposed project involves the extension of the Butterfield Channel to the Regional Detention Basin. Flows would stay in the channel that extends to the south side of the Regional Detention Basin and discharge to West Little Llagas Creek through a 24" pipe, east of Seymour Road (Figure 5). Incoming storm flows from Butterfield Channel will enter the Regional Detention Basin through an intake weir located along the western side when flows reach a depth of three feet or more in the channel. The Detention Basin will have adequate capacity to store 100-year flood flows from the Butterfield Channel drainage area.

Flows from the channel at the south side of the Detention Basin will spill over on occasion and flow overland to West Little Llagas Creek. This would occur when stormwater has not started flowing through the weir into the Detention Basin. The south side of Butterfield Channel will be protected with rock to reduce the potential for bank erosion during these events.

3.2.3 Grading

The project proposes grading for the construction of the Butterfield Boulevard southern extension and modifications to the Watsonville/Monterey intersection, as well as for the Regional Detention Basin.

The preliminary earthwork quantities for the roadway, UPRR overcrossing, Butterfield Channel and Detention Basin are approximately 39,000 cubic yards (CY) of cut and 215,000 CY of fill for street/channel grading, 103,000 CY of cut and 17,000 CY of fill for the Regional Detention Basin, and 20,000 CY of fill for strippings. This will result in having to import 109,000 CY of earth material. Assuming truck hauling capacity to be 20 CY per truck, the project estimates approximately 5,400 trips at 10-15 loads per day.



DESIGN PLAN : REGIONAL DETENTION BASIN

FIGURE 5

SECTION 4 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

In accordance with CEQA Section 21093(b) and CEQA Guidelines Sections 15152 and 15150, this Initial Study tiers off of the City of Morgan Hill Final EIR for the *Sutter Boulevard Extension & Flood Protection Facilities* (1992) and the subsequent 2005 Addendum to the Final EIR. This Initial Study concentrates on the evaluation of the project specific environmental impacts of the Butterfield Boulevard South Extension and changes to the project that were not addressed in the 1992 Final EIR and 2005 Addendum.

This section describes the existing environmental conditions on and near the project site, as well as environmental impacts associated with the proposed project. The environmental checklist, as recommended in the CEQA Guidelines, is used to identify environmental impacts that could occur if the proposed project is implemented. The right-hand column in the checklist lists the source(s) for the answer to each question. The sources cited are identified at the end of this document. Mitigation or avoidance measures are identified for all significant impacts.

In addition, each impact is numbered using an alpha-numerical system that identifies the environmental issue. For example, **Impact BIO – 1** denotes the first impact in the biological resources section. Mitigation measures and conclusions are also numbered to correspond to the impacts they address. For example, **MM AIR – 2.3** refers to the third mitigation measure for the second impact in the air quality section. The letter codes used to identify environmental issues are listed in Table 1 below.

Table 1: Letter Codes of Environmental Issues

Letter Code	Environmental Issue
AES	Aesthetics
AG	Agricultural Resources
AIR	Air Quality
BIO	Biological Resources
CUL	Cultural Resources
GEO	Geology and Soils
HAZ	Hazards and Hazardous Materials
HYD	Hydrology and Water Quality
LU	Land Use
MIN	Mineral Resources
NOI	Noise
POP	Population and Housing
PS	Public Service
REC	Recreation
TRAN	Transportation
UTIL	Utilities and Service Systems

4.1 AESTHETICS

4.1.1 Setting

The Watsonville Road/Butterfield Boulevard connection and related flood protection facilities would generally occur on flat, agricultural areas of vacant and cultivated farmland.

The Watsonville/Monterey intersection currently consists of a three-way intersection, where Watsonville Road dead-ends into Monterey Road (Photos 1-2). The southwest corner of the intersection is paved with old asphalt and concrete slabs up to the reach of West Little Llagas Creek which runs between Watsonville and Monterey Roads. West Little Llagas Creek flows northeast parallel to the northern side of Watsonville Road, before crossing beneath the road through a box culvert. Between Watsonville and Monterey Roads the creek flows through an earthen channel lined with trees on both the north and south banks (Photos 3-4). Just southeast of the proposed alignment of Butterfield Boulevard, West Little Llagas Creek emerges through a box culvert underneath Monterey Road. The area east of Monterey Road, where the extension of Butterfield Boulevard is proposed, consists of mainly vacant land, except for two residences located at 15540 and 15520 Monterey Road. This vacant land contains several trees, including Walnuts and a large mature Coast Live Oak (Photo 1).

The Regional Detention Basin portion of the project is located on flat agricultural land that has been used for row crops, with an existing residence located in the northeast of corner of the property (Photos 5-6). South of the project site, West Little Llagas Creek flows through a grassy earthen channel.

4.1.2 Environmental Checklist and Discussion

AESTHETICS	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒	☐	1
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒	☐	1
3) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐	☐	1
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒	☐	1

Photo 1 - View of Watsonville Road and Monterey Road intersection and adjacent vacant and cultivated land, looking northeast.

Photo 2 - View of Watsonville Road terminus at Monterey Road, looking north.

PHOTOS 1 AND 2

Photo 3 - West Little Llagas Creek corridor looking east from Watsonville Road towards Monterey Road.

Photo 4 - View of south bank of West Little Llagas Creek near south end of Monterey Road culvert.

PHOTOS 3 AND 4

Photo 5 - View of cultivated field at planned Regional Detention Basin location, looking northwest.

Photo 6 - View of southern end of cultivated field at proposed terminus of the Butterfield Channel, looking west from Seymour Avenue.

PHOTOS 5 AND 6

As stated in the 1992 FEIR and 2005 Addendum, the approved project would result in a significant and unavoidable visual/aesthetic impact, due to the introduction of a roadway and related flood protection facilities in an area where they do not currently exist.

The proposed widening of Watsonville Road and addition of related flood control facilities would result in changes to the visual character of the area. In particular removal of a large oak tree east of Monterey Road and oaks along a segment of West Little Llagas Creek will be noticeable to motorists, primarily those traveling eastbound on Watsonville Road near Monterey Road, although none of the proposed changes would be significantly different from the original approved project. However, the Butter Boulevard south extension, particularly the railroad overcrossing, will incorporate aesthetic treatments into the project design.

Watsonville Road and Monterey Road are not on the Santa Clara County Inventory of Scenic Roads within the project vicinity. The proposed changes to the project will not block views of scenic resources (i.e., hillsides bordering the valley) from a designated scenic highway or other prominent viewpoints. The proposed changes to the project would not significantly change the visual character of the overall approved project.

4.1.3 Conclusion

The proposed changes to the project would not result in new significant visual or aesthetic impacts. **(New Less Than Significant Impact)**

4.2 AGRICULTURAL RESOURCES

4.2.1 Setting

Portions of the project area northeast of Monterey Road and southeast of the proposed extension of Butterfield Road are designated *Prime Farmland* (APN 817-06-002). Adjacent property both north and south of this parcel is designated as *Grazing Land* (APN 817-06-001, -005). The property south of Watsonville Road and west of Monterey Road is designated *Urban and Built-Up Land*.

The property on which the Regional Detention Basin portion of the project site is proposed is designated *Prime Farmland* and *Farmland of Statewide Importance*. A Williamson Act contract on the property has been in place since 1971. The contract is in non-renewal with the contract remaining in effect until 2017.

Farmland resources, as mapped by the California Department of Conservation, are shown on Figure 6.

4.2.2 Environmental Checklist and Discussion

AGRICULTURAL RESOURCES	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒	☐	1,2,4
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	☐	1,2,4
3) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒	☐	1,2,4

The proposed changes to the Watsonville/Monterey intersection portion of the project would not result in the increased loss of any existing farmland compared to the originally approved project.

The proposed changes to the Regional Detention Basin outfall and the Butterfield Channel extension would not result in the increased loss of any existing farmland compared to the originally approved project.

AGRICULTURAL RESOURCES

FIGURE 6

The properties on which the Regional Detention Basin have been under a Williamson Act contract since 1971, although the current status of the contract is "non-renewal". Development on these parcels is restricted until 2017 unless the process for cancellation of the contract is initiated.[1] As planned improvements are proposed before the end of this contract, the City will need to pursue termination of contract.

The proposed changes to the project, widening of Watsonville Road and construction of related flood control facilities, would not result in the loss of additional agricultural resources either directly or indirectly. The proposed changes, therefore, will have no new significant impacts on farmland or agricultural activities of any kind.

4.2.3 Conclusion

The proposed changes to the project would not result in an additional impact on farmlands or agricultural activities. **(Same Impact as "Approved Project")**

[1] Peak, Dana. Program Manager County of Santa Clara, Personal Communication. December 16, 2009.

4.3 AIR QUALITY

4.3.1 Setting

4.3.1.1 *Regional and Local Air Quality*

Air quality and the amount of a given pollutant in the atmosphere are determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determination of transport and dilution are wind, atmospheric stability, terrain, and for photochemical pollutants, sunlight.

The Bay Area Air Quality Management District (BAAQMD) monitors air quality at several locations within the San Francisco Bay Air Basin. Of the three pollutants known at times to exceed the state and federal standards in the project area, two are regional pollutants. Both ozone and particulate matter (PM_{10}) are considered regional pollutants in that concentrations are not determined by proximity to individual sources, but show a relative uniformity over a region. The third pollutant, carbon monoxide, is considered a local pollutant because elevated concentrations are usually only found near the source.

The Federal Clean Air Act and the California Clean Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state, where the federal or state ambient air quality standards are not met, as "nonattainment areas." Because of the differences between the national and data standards, the designation of nonattainment areas is different under the federal and state legislation. Under the California Clean Air Act, Santa Clara County is classified as a nonattainment area for ozone and PM_{10}. The county is either in attainment or unclassified for other pollutants.

4.3.2 Environmental Checklist and Discussion

AIR QUALITY	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒	☐	1,5,18
2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐	☐	1,5,18

AIR QUALITY						
	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?	☐	☐	☐	☒	☐	1,5,18
4) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒	☐	1,5,18
5) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒	☐	1,5,18

The adopted BAAQMD CEQA Guidelines (1999) provides procedures for evaluating possible air quality impacts for proposed projects and plans consistent with CEQA requirements. BAAQMD recently released CEQA Draft Air Quality Guidelines (December 2009), which is an update to its current CEQA Guidelines, and Proposed CEQA Thresholds of Significance (December 2009), which includes updated thresholds for criteria air pollutants and toxic air contaminants (TACs). The Draft Air Quality Guidelines (if adopted) would supersede BAAQMD's current BAAQMD CEQA Guidelines (1999). It is anticipated by BAAQMD that their CEQA Air Quality Guidelines update will be adopted by April 2010. According to BAAQMD, projects who have released their NOP prior to the adoption of the 2009 draft guidelines should analyze their air quality impacts according to the BAAQMD CEQA Guidelines (1999).[2]

4.3.2.1 *Long-Term Air Quality Impacts*

As stated in the 1992 FEIR, the proposed roadway and related flood control facilities are designed to serve existing and planned future development and, therefore would not create new significant or unforeseen air quality impacts due to vehicle traffic.

The proposed changes to the project would not create or be a new source of objectionable odors.

4.3.2.2 *Short-Term Air Quality Impacts*

Construction-related air quality impacts associated with the proposed project are the result of dust creating activities, exhaust emissions of construction equipment and the use of typical construction materials such as solvents, paints and other construction materials that tend to volatilize into the

[2] Hilken, Henry. BAAQMD Division Director for Planning, Rules, and Research. Santa Rosa Public Workshop. September 9, 2009.

atmosphere. The revised project includes additional grading, and filling operations for a new local detention basin and realignment of Watsonville Road.

Construction activities such as excavation and grading operations and construction vehicles driving over and wind blowing over exposed earth, generate fugitive particulate matter that will affect local and regional air quality. The effects of these dust generating activities will be increased dustfall and locally elevated levels of PM_{10} downwind of construction activity. If uncontrolled, dust generated by construction activities could be a significant environmental impact.

Subsequent to certification of the 1992 Final EIR, BAAQMD prepared a list of feasible construction dust control measures that can reduce construction impacts to a less than significant level and the State of California adopted regulations on construction equipment idling. The following construction practices apply to the project and will be implemented by contractors during construction of the proposed project.

SM AIR 1.1: Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes, as required by the California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations. Clear signage shall be provided for construction workers at all access points.

AM AIR 1.2: Construction Measures from 1999 BAAQMD CEQA Guidelines

- Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
- Cover all trucks hauling soil, sand, or other loose materials or require all trucks to maintain at least two feet of freeboard.
- Sweep streets daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)
- Suspend construction activities that cause visible dust plumes to extend beyond the construction site.

AM AIR 1.3: Additional Construction Measures from 2009 Draft BAAQMD CEQA Guidelines

- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- A publicly visible sign with the telephone number and person to contact at the City of Morgan Hill regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

4.3.3 Conclusion

The proposed changes to the project would not result in new significant long-term regional or local air pollutant emissions from operation of the roadway. **(Same Impact as "Approved" Project)**

Short-term air quality impacts associated with construction will be minimized through implementation of standard dust control measures included in the project. **(New Less Than Significant Impact)**

4.4 BIOLOGICAL RESOURCES

The following section is based upon a Biological Resources Assessment and Preliminary Section 404 Determination, both prepared by *WRA, Inc.* in January 2010. The reports are provided in Appendix A and Appendix B of this Initial Study, respectively.

4.4.1 Setting

4.4.1.1 *Habitats*

The project is located in southern Morgan Hill in an area surrounded by urban development and agricultural fields. On-site habitat has been significantly altered from its native state. The majority of the site is composed of fallow fields characterized by ruderal herbaceous grassland vegetation, including mustard, ripgut brome, yellow star thistle, and Italian thistle. Several walnut trees are present within the ruderal grassland, and landscape trees and shrubs occur along developed portions of the project area. A large portion of the site is composed of cultivated agricultural land, in which row crops were being cultivated at the time of the site visit (November 24, 2009). In addition, West Little Llagas Creek runs through the southern portion of the project area and supports a small area of coast live oak riparian habitat south of the Watsonville/Monterey intersection. Elevations of the project area range from 310 to 325 feet. Habitats in the project area are shown on Figure 7.

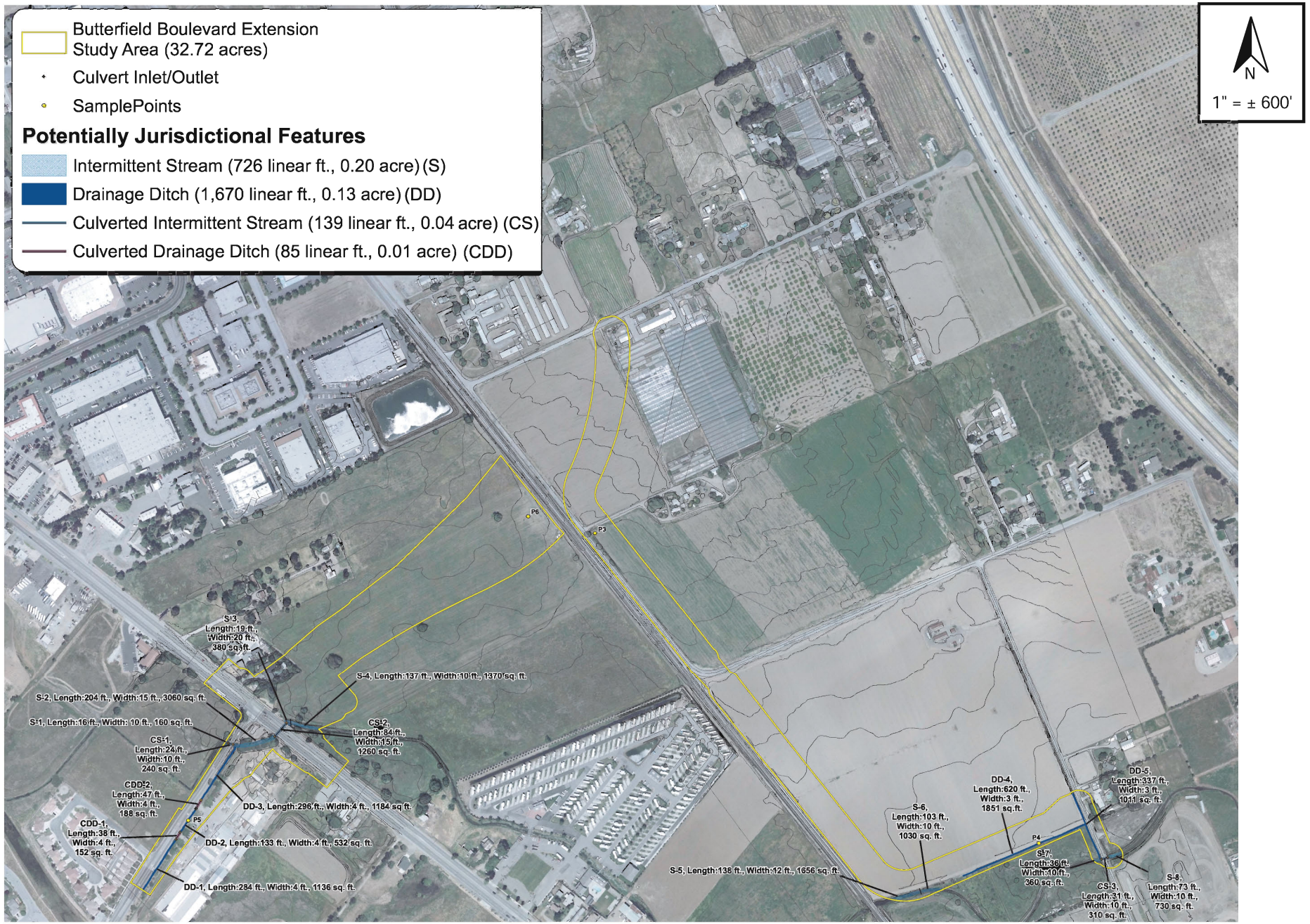
Regulatory Overview – Sensitive Biological Communities

Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates "Waters of the United States" under Section 404 of the Clean Water Act. "Waters of the U.S." are defined broadly as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands stated in the U.S. Army Corps of Engineers Wetlands Delineation Manual ("Corps Manual"; Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region ("Arid West Supplement"; Corps 2008), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated for sufficient duration and depth to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into "Waters of the U.S." (including wetlands) generally requires an individual or nationwide permit from the Corps under Section 404 of the Clean Water Act.

Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404. "Waters of the State" are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of



Source: WRA, Jan. 2010. Aerial Photo: USGS 2006.

REGULATED HABITATS

FIGURE 7

the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact "Waters of the State," are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to "Waters of the State," the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFG under Sections 1600-1616 of California Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, "on, or pertaining to, the banks of a stream;" therefore, riparian vegetation is defined as, "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG ESD 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFG.

Regulatory Overview – Special Status Species

Special status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Game (CDFG) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFG special status invertebrates are all considered special status species. Although CDFG Species of Special Concern generally have no special legal status, they are given special consideration under CEQA. In addition to regulations for special status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal. Plant species on California Native Plant Society (CNPS) Lists 1 and 2 are also considered special status plant species and must be considered under CEQA. CNPS List 3 plants have little or no protection under CEQA, but are included in this analysis for completeness.

Critical Habitat

Critical habitat is a term defined and used in the Federal Endangered Species Act as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The FESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species.

4.4.1.2 *Special Status Plants and Wildlife*

Special Status Plants

Based on a literature review and a reconnaissance-level field survey, it was determined that all special status plant species occurring in the vicinity of the project area are unlikely or have no potential to occur within the project area. The project area does not have the potential to support any special status plant species due to the dominance of active agricultural areas, developed land, and ruderal habitat. Special status plant species were not observed in the project area during the assessment site visit.

Special Status Wildlife

Based on a literature review and reconnaissance-level field survey, it was determined that the project area lacks sufficient suitable habitat for most regionally occurring special status species. Thirty-one special status species occur within the vicinity of the project site, although only seven species were observed or have a moderate to high potential to occur with the project site. A list of special status wildlife and their potential for occurrence in the project area is included in Appendix A (Sub-Appendix B). Species that have a moderate to high potential to occur in the project area are described below.

Burrowing Owl, CDFG Species of Special Concern; USFWS Bird of Conservation Concern

In California, Burrowing Owls are found in close association with California ground squirrels, and often use the abandoned burrows of ground squirrels for shelter and nesting. Ground squirrel burrows have been observed during previous site visits (City of Morgan Hill 2005); however, no ground squirrel burrows, Burrowing Owls, or signs of Burrowing Owls were observed during the November 24, 2009 site visit. Potential habitat on-site includes untilled, open fallow fields with low-growing vegetation. Potential habitat in the project area is limited, and the vegetation consists of low to moderately high, non-native, ruderal grassland species; therefore, there is a moderate potential for this species to occur.

San Francisco Dusky-footed Woodrat, CDFG Species of Special Concern

Several Dusky-footed Woodrat nests were observed on-site in the coast live oak riparian habitat south of the Watsonville/Monterey intersection.

Nesting Special Status Birds

Small mammal burrows and observations of other raptor species foraging in the project area indicate prey availability for special status species such as the White-tailed Kite and Golden Eagle, both CDFG Fully Protected Species. Riparian habitat and isolated walnut and oak trees and shrubs may provide high quality nesting habitat for the White-tailed Kite; therefore, there is a high potential for this species to occur within the project area. No suitable Golden Eagle nesting habitat was observed within the project area, though marginal quality foraging habitat is present, though an individual of this species was observed flying over the project area several times during the November 24, 2009 site visit.

Roosting Bats

On November 24, 2009, each structure on the site was evaluated for its potential for use by roosting bats. The project area provides potential habitat for the Pallid Bat, a California species of special concern. Several of the on-site structures provide marginal roosting habitat for this species. Only one tree with visible cavities was present in the project area, though the cavities were shallow and no whitewash was observed; therefore, WRA considers that there is a moderate potential for this species to occur within the project area. The project site may also provide marginal habitat for other roosting bat species, such as the Yuma myotis.

Steelhead, Federal Threatened

The portion of West Little Llagas Creek located within the project area does not provide suitable spawning habitat for this species, and riparian habitat within the project area is limited to the section of creek south of the Watsonville/Monterey intersection. However, West Little Llagas Creek is a tributary to Llagas Creek, which is designated critical habitat for this population of steelhead. West Little Llagas Creek also passes through several culverts within the project area, though no impenetrable barriers to fish passage were observed on-site. Steelhead may occasionally utilize the low quality habitat in West Little Llagas Creek during the wet season; therefore, there is a moderate potential for this species to occur within the project area.

4.4.1.3 *Trees*

City of Morgan Hill Tree Ordinance

The City of Morgan Hill defines an ordinance-sized tree as any live woody plant characterized by having a main stem or trunk with a circumference measuring more than 40 inches for non-indigenous species and 18 inches for indigenous species, measured at four and one-half feet vertically above the ground or immediately below the lowest branch, whichever is lower (Municipal Code 12.32).

The fenceline on the southeast side of Watsonville Road is lined with numerous trees, including coast live oak, coast redwood, silver wattle, and willow. Along the current north and south sides of Monterrey Road near the intersection of Watsonville Road are various sized coast live oaks. In the field northeast of Monterey Road there are scattered, mature coast live oak and walnut trees. There are no trees located on the Regional Detention Basin project site.

4.4.2 Environmental Checklist and Discussion

BIOLOGICAL RESOURCES	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	☐	1,2,6
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	☐	1,2,6
3) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐	☐	1,2,6
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	☐	☒	☐	☐	☐	1,2,6
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐	☐	1,2,6
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	☐	1,2,6

4.4.2.1 *Impacts to Sensitive Habitats*

Two sensitive biological communities are found in the project area: *Coast Live Oak Riparian Forest* and *Other Waters* along drainages. The riparian habitat is predominantly located along the section of West Little Llagas Creek located between Watsonville Road and Monterey Road. The *Other Waters,* as defined under section 404 of the Clean Water Act, includes the area supporting the Coast Live Oak Riparian Forest as well as drainage ditches. Impacts to habitats are shown on Figure 8 and impacts to jurisdictional waters are shown on Figure 9.

Construction of the proposed Watsonville Road improvements will result in impacts to 0.1-acre of Coast Live Oak Riparian Forest. The project would convert *Other Waters* under jurisdiction of the US Army Corps of Engineers (263 linear-feet of intermittent stream and 728 linear-feet of drainage ditches) to developed land. Construction of the project would directly impact these regulated sensitive habitats.

Riparian Habitat

Impact BIO-1.1: The conversion of 0.1-acre of riparian habitat into developed land would result in a significant impact to a sensitive habitat. **(New Significant Impact)**

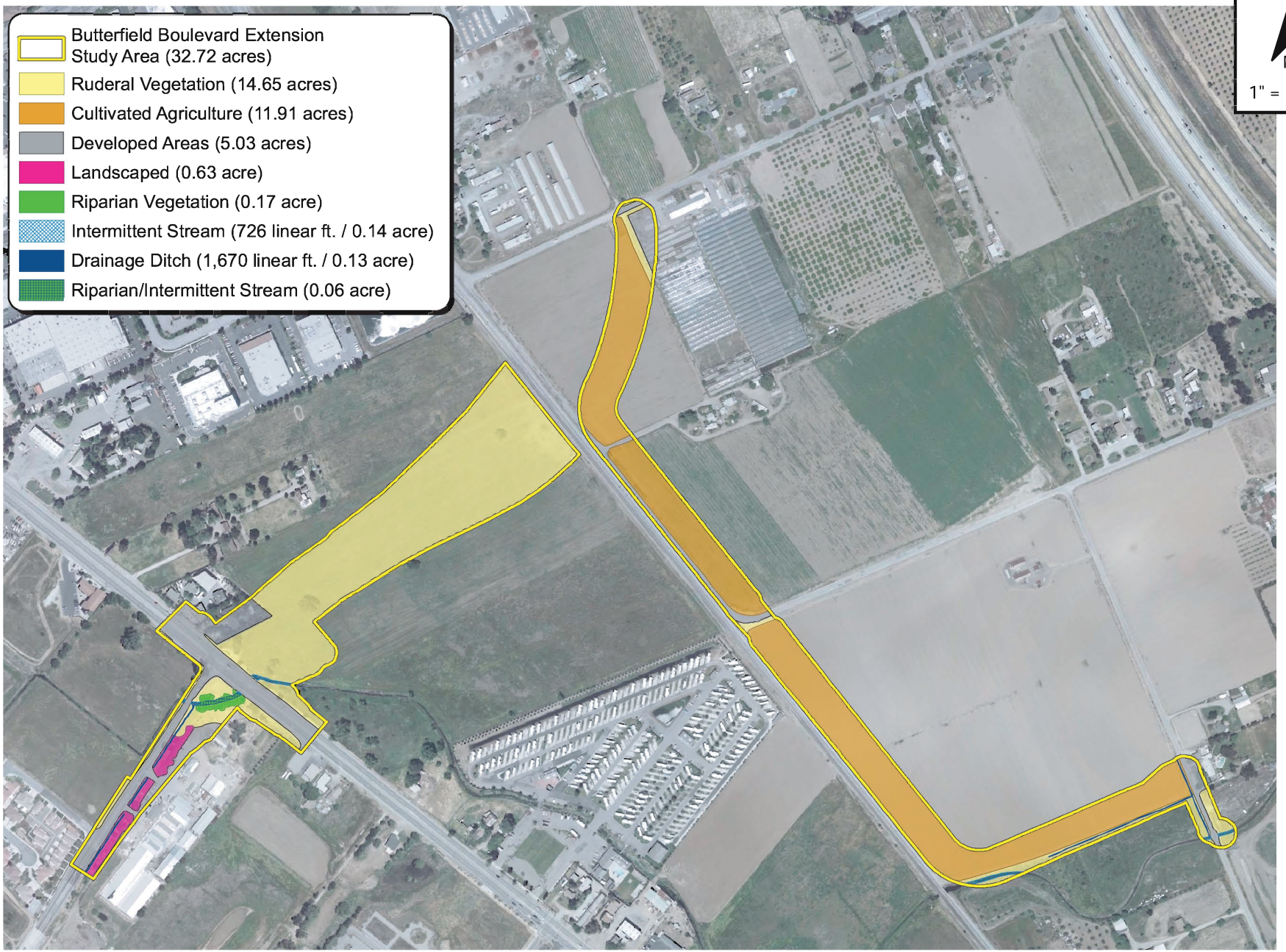
Mitigation and Avoidance Measures

MM BIO-1.1: Approximately 0.1 acres of riparian habitat on the project site shall be replaced at a replacement-to-loss ratio of 3:1 (three acres of riparian habitat created for each acre disturbed). Mitigation would occur on-site or in the Llagas Creek subwatershed through creation of replacement riparian habitat pursuant to a site-specific mitigation plan. At a minimum, this plan shall identify habitat impacts, the mitigation area, a planting plan, and success criteria, along with remedial measures to compensate for lack of success.

The mitigation site for riparian impacts is anticipated to be located along an unlined section of the extended Butterfield Channel, south of Tennant Avenue.

The riparian habitat mitigation and monitoring plan shall specify the use of locally native, riparian plant species, quantities for planting, irrigation and maintenance requirements, performance criteria, and annual monitoring and reporting methods for a minimum five-year monitoring period, as described below. Use of locally native plant species is important to maintain or improve the existing habitat structure and genetic integrity of restoration and mitigation areas.

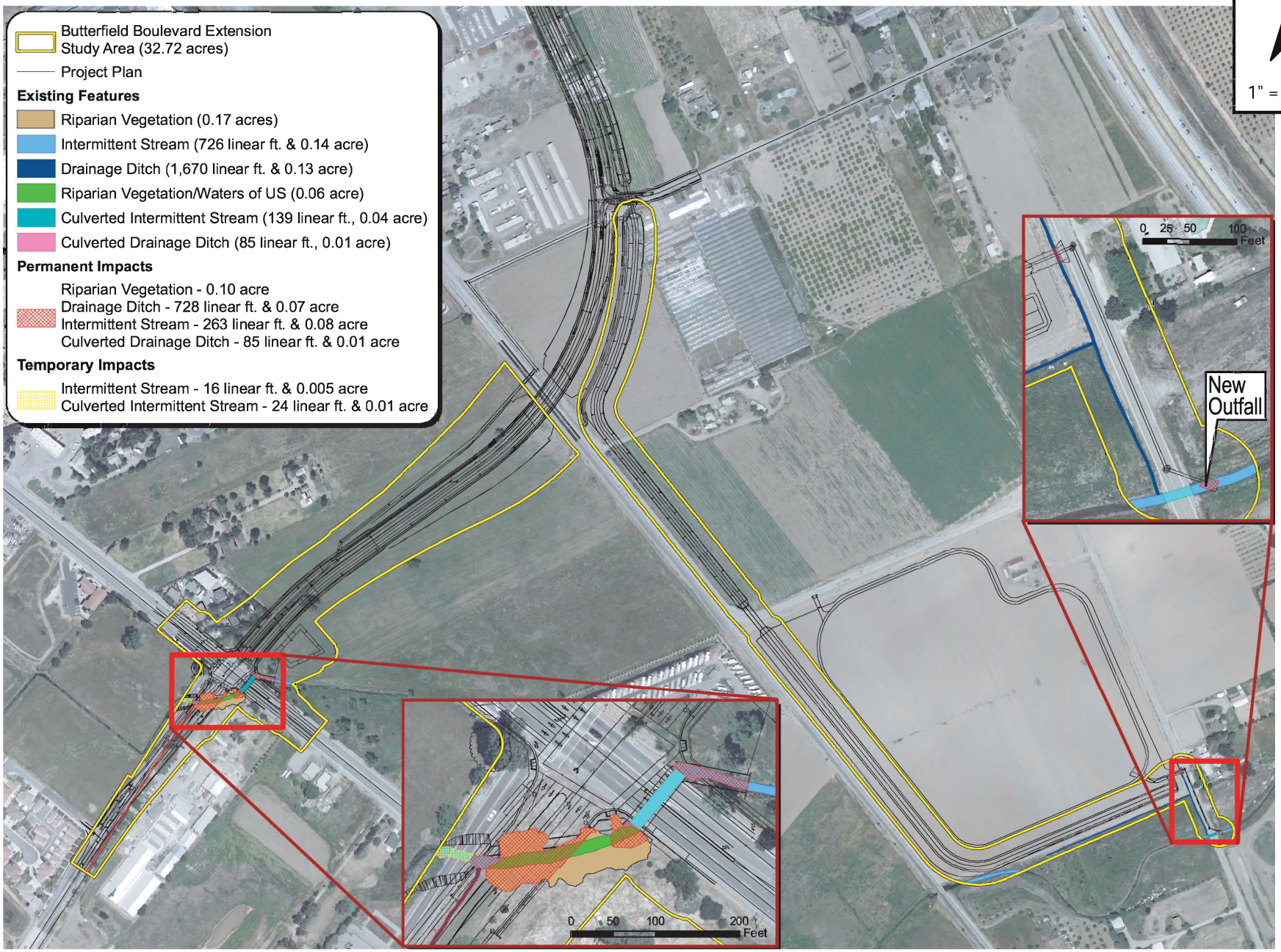
The riparian mitigation site shall be annually monitored for a 5-year period or until attainment of the final success criteria. Failure to meet the performance criteria will trigger an evaluation of the cause of poor performance and implementation of remedial and adaptive management actions. If the final success criteria have not been met, remedial actions shall be required and monitoring will continue until the final success criteria have been achieved.



Source: WRA, Dec. 2009. Aerial Photo: USGS 2006.

BIOLOGICAL COMMUNITIES WITHIN THE STUDY AREA

FIGURE 8



Source: WRA, Jan. 2010. Aerial Photo: USGS 2006.

BIOLOGICAL IMPACTS TO SENSITIVE COMMUNITIES

FIGURE 9

Monitoring of the mitigation site by a qualified biologist will determine if the project has met its mitigation obligation. When the final success criteria are met, a final report shall be submitted to the Director of Public Works and appropriate Responsible Agencies (i.e., U.S. Army Corps of Engineers, RWQCB, and/or California Department of Fish and Game) for review and acceptance.

Intermittent Stream and Drainage Ditches

Impact BIO-2.1: The conversion of 263 linear feet of intermittent stream and 728 linear feet drainage ditches to developed land could result in a significant impact to jurisdictional waters. **(New Significant Impact)**

Mitigation and Avoidance Measures

MM BIO-2.1: Prior to initiating creek and drainage ditch modifications, the City shall apply for and be issued a Section 404 permit from the USACE, Section 401 certification from the Regional Water Quality Control Board, and Streambed Alteration Agreement from the CDFG. The City and contractors shall comply with the conditions of these regulatory permits.

Over 5,000 linear feet of new drainage ditch will be created between Tennant Road and the Regional Detention Basin within the Butterfield Channel Extension.

4.4.2.2 *Impacts to Special Status Plants and Animals*

As stated previously, a literature search and field survey determined that regionally occurring special status plant species are unlikely or have no potential to occur within the project site. The project area does not have the potential to support special status plants, and no special status plants were observed during project site visits; therefore, the proposed project will not impact any special status plants.

The following paragraphs discuss impacts to wildlife species that may breed to roost in or immediately adjacent to the project area.

Burrowing Owl

As discussed previously, although not observed, Burrowing Owls may forage and nest within the project area. The proposed project could result in impacts to Burrowing Owl individuals and habitat on or immediately adjacent to the project site during construction.

The 1992 FEIR included a mitigation measure that called for Burrowing Owls surveys and relocation of owls. The City of Morgan Hill adopted a Citywide Burrowing Owl Habitat Mitigation Plan subsequent to certification of the FEIR. The standard mitigation measures in the plan are now proposed as a part of the project as outlined below.

Impact BIO-3.1: Construction of the project could result in impacts to Burrowing Owl individuals or nests. **(New Significant Impact)**

Mitigation and Avoidance Measures

SM BIO-3.1: In conformance with the City's Burrowing Owl Habitat Mitigation Plan, the project will be required to implement the following measures to avoid direct impacts to burrowing owls and to offset impacts to non-native grassland habitat on the site. Implementation of this standard measure would avoid or reduce significant impacts to burrowing owls and their habitat.

- Complete pre-construction surveys to determine if burrowing owls are present within the footprint of the proposed grading area, no more than 30 days prior to initiation of any construction-related activities.
- Should burrowing owls be found on the site during the breeding season (February 1 through August 31), exclusion zones with a 250-foot radius from occupied burrows, shall be established. All project-related activities shall occur outside of the exclusion area until the young have fledged.
- If preconstruction surveys are completed during the non-breeding season and burrowing owls are observed on the site, the owls may be relocated upon approval of the California Department of Fish and Game once mitigation has been provided.
- A final report on burrowing owls, including any protection measures, shall be submitted to the Director of Community Development prior to grading.

San Francisco Dusky-footed Woodrat

As discussed previously, woodrat nests were observed at the project site and individuals may forage and breed within the project area. The proposed project could result in impacts to woodrat individuals, nests, and habitat on or immediately adjacent to West Little Llagas creek during construction of improvements to Watsonville Road.

Impact BIO-4.1: Construction activities including grading, tree removal, and modifications to West Little Llagas Creek could result in impacts to San Francisco Dusky-footed Woodrats. **(New Significant Impact)**

Mitigation and Avoidance Measures

MM BIO-4.1: A qualified wildlife biologist will conduct a preconstruction survey to determine if active woodrat nests occur within areas to be cleared of vegetation or within an approximately 10-foot buffer between clearing activities and each nest. Preconstruction surveys will be conducted not more than 30 days prior to the period of disturbance. If woodrat nests are found by the wildlife biologists to be occupied, each woodrat shall be relocated to suitable habitat in consultation with California Department of Fish and Game. If young are found within the nest, the nest material will be replaced until

young have been weaned (up to six weeks from birth), at which point the nest will be dismantled and relocated.

Nesting Special Status Birds

As discussed previously, special status birds may forage and nest within the project area. The proposed modifications to the project could result in impacts to protected individuals and habitat during tree removal and construction.

Impact BIO-5.1: The removal of on-site trees and land clearing could result in impacts to nesting special status bird species. **(New Significant Impact)**

Mitigation and Avoidance Measures

MM BIO-5.1: Land clearing and tree removal near suitable nesting sites will be scheduled to avoid the nesting season to the extent possible. In the South San Francisco Bay area, most raptors and other birds breed from February through August. If tree and vegetation removal can be scheduled to occur between September 1 and February 1, the nesting season would be avoided, and no impacts to nesting raptors and other avian species would be expected.

MM BIO-5.2: If clearing and tree removal are to occur during the nesting or breeding season (generally February through August), pre-activity surveys will be conducted by a qualified biologist to ensure that no raptor or other bird nests will be disturbed during project implementation. The pre-activity surveys will be conducted no more than 14 days prior to the initiation of tree removal/land clearing activities. During this survey, the biologist would inspect all trees that could provide nesting sites in and immediately adjacent to the impact areas for raptor and other common bird species nests. If an active nest is found close enough to the tree removal area to be disturbed by these activities, the biologist, in consultation with CDFG, would determine the extent of a construction-free buffer zone to be established around the nest. Buffer zone distances will differ depending on species, location, and placement of the nest.

The contractor shall submit a report indicating the result of the surveys and any designated buffer zones to the satisfaction of the Department of Community Development, Planning Division and Director of Public Works prior to grading.

Roosting Bats

Tree removal of the large oak east of Monterey Road and the demolition of structures near Fisher Avenue have the potential to take roosting or hibernating Pallid Bat or Yuma Myotis during the period of November through mid-August.

Implementation of the following measures would ensure that bats protected by the California Fish and Game Code are not disturbed or taken during project implementation:

Impact BIO-6.1: The removal of on-site structures and one large mature oak tree could result in impacts to special status bat species. **(New Significant Impact)**

Mitigation and Avoidance Measures

MM BIO-6.1: If tree and building removal is undertaken in late August through October, no additional measures are required.

For tree or building removal from November through mid-August, pre-construction surveys of the large mature oak tree in the field west of the UPRR tracks and east of Monterey Road and structures to be removed will be conducted by a qualified biologist, as defined by holding a Memorandum of Understanding from CDFG, no more than 30 days prior to the initiation of demolition or tree removal. The biologist will examine the mature oak [and structures] for urine staining and fecal pellets. If signs of the presence of bats are detected, the biologist will determine whether the bats are presently occupying the tree or buildings and whether the colony is breeding. The biologist will then work with the contractor to exclude the colony from the trees at an appropriate time when the bats are not engaged in breeding or hibernation activities.

Steelhead

As discussed previously, federally threatened Steelhead may occasionally utilize the low quality habitat in West Little Llagas Creek during the wet season; therefore, there is a moderate potential for this species to occur within the project area. Work within a live stream could result in direct impacts. Introduction of elevated levels of sediment in runoff from active construction areas also could adversely impact this aquatic species.

Impact BIO-7.1: Construction activities within and adjacent West Little Llagas Creek could result in impacts to Steelhead. **(New Significant Impact)**

Mitigation and Avoidance Measures

MM BIO-7.1: Construction grading in the West Little Llagas Channel will be limited to the period outside the steelhead spawning season (June 15-October 15) and would not include work within a live stream.

MM BIO-7.2: The stream channel will be protected from sedimentation with the implementation of Erosion and Sediment Control Plans to be prepared as part of the project as well as a Storm Water Pollution Prevention Plan (SWPPP), plans will be reviewed and approved by the Director of Public Works prior to any physical development of the project area.

4.4.2.3 *Impacts to Trees*

Implementation of the modified Butterfield Boulevard South Extension project will result in the removal of trees along the southeast side of Watsonville Road, trees along the banks of West Little Llagas Creek between Watsonville Road and Monterey Road, and two trees in the field northeast of Monterey Road and west of the UPRR tracks within the Butterfield Road alignment.

A tree survey completed outside the riparian corridor of West Little Llagas Creek identified a total of 8 indigenous oak trees and 17 landscape trees that will be impacted by the project. A total of 15 of these trees are considered significant trees, as defined by the City of Morgan Hill. The location of these trees is shown on Figure 10 on the following page and Table 4.4-2 provides a description of the trees. The numbers on Figure 10 correspond to the numbers in Table 4.4-2.

Additional coast live oak trees will be removed from the West Little Llagas Creek corridor during installation of the new box culvert and widening of Watsonville Road. Several coast live oaks will be retained on the south bank of the creek where the creek channel will remain open. Oaks removed from this reach of the creek will be replaced as part of the riparian mitigation and monitoring plan as outlined in MM BIO-1.1.

Impact BIO-8.1: Implementation of the modifications to the project will result in the removal of 15 significant trees, including 7 indigenous oak trees, and construction activities near oaks to be retained could impact tree health and survival. **(Significant Impact)**

Mitigation and Avoidance Measures

SM BIO-8.1: The following tree protection measures, in accordance with guidelines set forth by the City of Morgan Hill and County of Santa Clara, will be included in the project in order to protect trees to be retained during demolition and grading activities:

- An I.S.A Certified Arborist shall review final grading / demolition / construction plans and make recommendations regarding preservation of all trees potentially impacted by the proposed project, which are designated for preservation. If the Arborist concludes, with concurrence from City of Morgan Hill staff, that the proposed improvements will result in damage and subsequent irreversible loss of additional trees on site, replacement mitigation shall be required.

- Final grading / construction plans shall clearly identify the size and species of all trees proposed for removal, consistent with the arborist plan review report. For each tree designated for removal, replanting shall occur at the following ratios:

TREE REPLACEMENT RATIOS			
Circumference of Tree to be Removed	**Non-Native Replacement Ratio**	**Indigenous Tree Replacement Ratio**	**Minimum Size of Each Replacement Tree**
36 inches or greater	4:1	5:1	15-gallon
18-36 inches	2:1	3:1	15-gallon
Less than 18 inches	1:1	1:1	5-gallon
Notes: *X:X = tree replacement to tree loss ratio*			

- Prior to the demolition of any structure or hardscape, all trees to be retained shall be protected with chain link fencing.

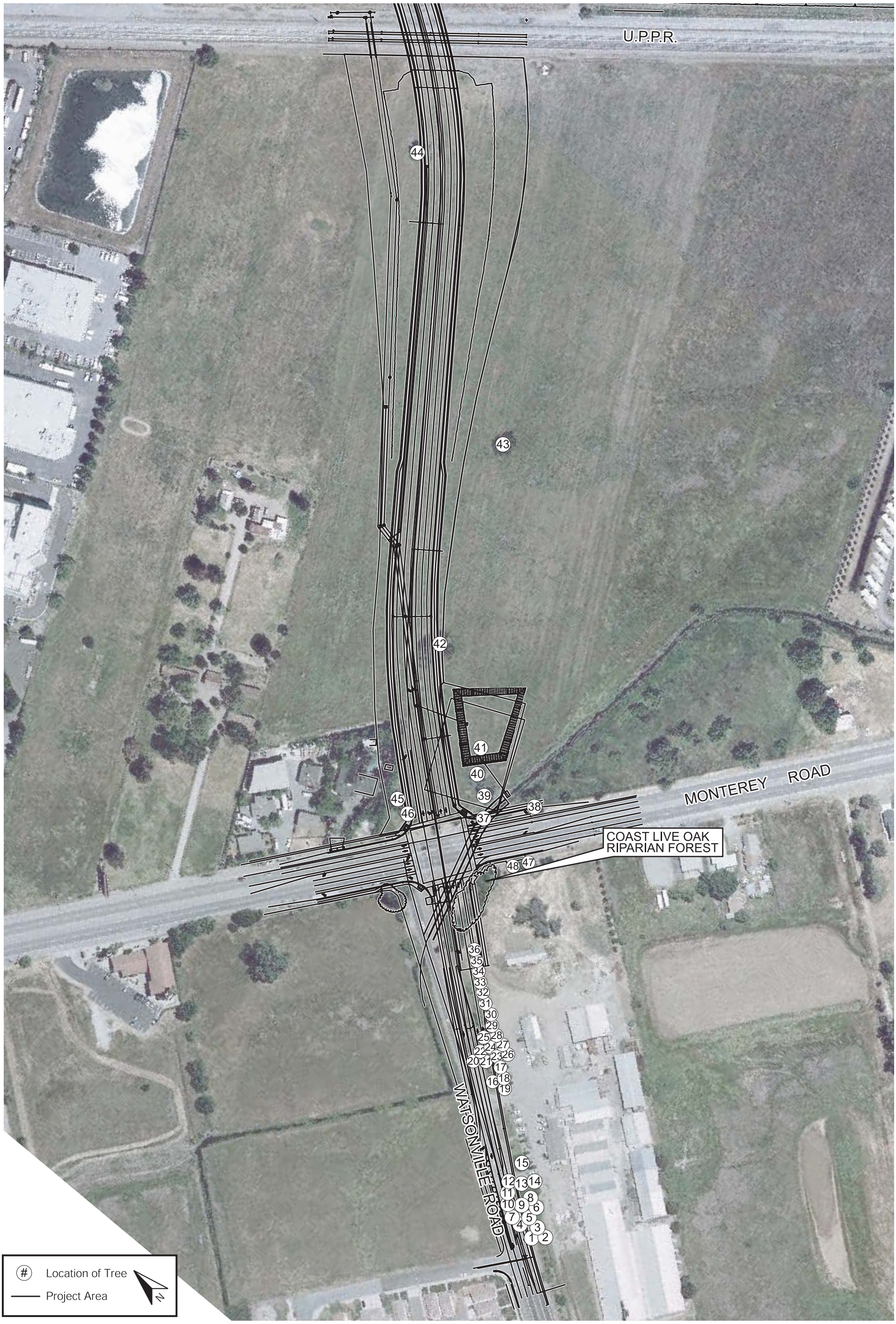
- Fencing shall be a minimum five-foot high, minimum 12-gauge chain link fence. Fences are to be mounted on 2-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing.

- If Mulching is required to avoid compaction of roots, mulching shall be installed prior to the demolition per certified arborist recommendations.

- All tree protection measures as recommended by a certified Arborist shall be shown on the final grading / construction or landscape plans and adhered to during construction. The arborist shall monitor construction activity to ensure that the tree protection measures are implemented, and submit a Construction Observation Letter to the Planning Office for approval, prior to final inspection, summarizing the results of the monitoring activity, and resulting health of trees designated for preservation onsite.

- An I.S.A Certified Arborist shall submit to the City of Morgan Hill and County of Santa Clara Planning Offices two (2) copies of a monitoring report annually from the date of final inspection. The report shall show compliance with the tree protection conditions of approval and verification that all trees are in good health.

- Fenced enclosures shall be erected at the dripline of the trees to be protected to establish the TPZ in which no soil disturbance is permitted and activities are restricted.



TREE SURVEY

FIGURE 10

Table 4.4-2
Tree Survey

No.	Species	Circumference (in)			Height (ft)	Protection Measures[1]	Removed[2]
1	Walnut	18			20	Y	N
2	C. Live Oak	24			20	Y	N
3	C. Live Oak	36			20	Y	N
4	C. Live Oak	36	36		20	N	N
5	C. Live Oak	30			15-20	Y	N
6	C. Live Oak	26			15-20	N	N
7	C. Live Oak	24			15-20	N	N
8	C. Live Oak	24			15-20	N	N
9	C. Live Oak	24			15-20	N	N
10	C. Live Oak	36			15-20	N	N
11	C. Live Oak	30	30		15-20	N	N
12	**C. Live Oak**	**24**			**12**	**N**	**Y**
13	C. Live Oak	23			15-20	N	N
14	C. Live Oak	36	24		15-20	Y	N
15	C. Live Oak	66			25	Y	N
16	**Acacia**	**24**			**25**	**N**	**Y**
17	Acacia	30	30	30	N/A	Y	N
18	Willow	36			N/A	Y	N
19	Willow	45			N/A	Y	N
20	**Acacia**	**36**			**25**	**N**	**Y**
21	**C. Live Oak**	**42**			**15-20**	**N**	**Y**
22	**C. Live Oak**	**30**	**30**	**30**	**15-20**	**N**	**Y**
23	**C. Live Oak**	**24**	**24**	**30**	**15-20**	**N**	**Y**
24	**C. Live Oak**	**12**			**15-20**	**N**	**Y**
25	**C. Live Oak**	**36**			**15-20**	**N**	**Y**
26	Willow	10			15-20	N	Y
27	Willow	12			15-20	N	Y
28	Willow	12			15-20	N	Y
29	Willow	9	24		15-20	N	Y
30	**Willow**	**54**			**15-20**	**N**	**Y**
31	Willow	18	18	24	10	N	Y
32	**Willow**	**60**			**15-20**	**N**	**Y**
33	Redwood	9			10	N	Y
34	Redwood	*Dead*			10	N	Y
35	Redwood	24			15-20	N	Y
36	Redwood	24			15-20	N	Y
37	**Walnut**	**60**	**36**	**24**	**N/A**	**N**	**Y**
38	**C. Live Oak**	**45**			**N/A**	**N**	**Y**
39	Walnut	72			30	Y	N
40	Walnut	60			30	Y	N
41	Walnut	*Dead*			30	Y	N
42	**C. Live Oak**	**140**			**25-30**	**N**	**Y**
43	Walnut	N/A			30	Y	N
44	**Walnut**	**84**			**40**	**N**	**Y**
45	**Walnut**	**96**			**30**	**Y**	**Y**
46	**Walnut**	**90**			**30**	**Y**	**Y**

Table 4.4-2
Tree Survey

No.	Species	Circumference (in)			Height (ft)	Protection Measures[1]	Removed[2]
47	C. Live Oak	90			20-25	Y	N
48	C. Live Oak	36	45	54	20-25	Y	N

[1] Trees planned for implementation of tree protection measures to prevent impacts.
[2] Trees planned for removal.
Note: Survey includes trees within project vicinity, excluding those within the riparian habitat.
Circumference measurements estimated from diameters measured in MH Engineering *Site Topo/Demolition Plan*, Sheet 05.

- Sixteen trees to be preserved shall be protected with minimum five-foot high. Fences are to be mounted on 2-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet, at no more than 10-foot spacing (See detail, available at www.sccplanning.org). This detail shall appear on grading, demolition and building permit plans.

- Tree fencing shall be erected before any demolition, grading or construction begins and remain in place until the Final Inspection.

- A warning sign shall be prominently displayed on each tree protective fence per the requirements of development pursuant to the Santa Clara County Planning Office and Morgan Hill Planning Office. The signs are available at the Planning and Building Inspection Offices or at www.sccplanning.org.

- Irrigate to wet the soil within the TPZ during the dry season as specified by the Project Arborist.

- During periods of extended drought, or grading, spray trunk, limbs, and foliage to remove accumulated construction dust.

- Compaction of the soil is the largest killer of trees on construction sites due to suffocation of roots. If compaction to the upper 12-inch soil within the TPZ has occurred or is proposed, then one or more of the following mitigation measures shall be implemented as recommended by the Project Arborist, City Planning Office, or County Planning Office.

  A. Four-inches of chip bark mulching shall be placed on top of the TPZ and enclosed with the tree protective fencing as prescribed in the County protective fencing measures.

  B. If compaction of the root system, may result in possible suffocation of the root system, a soil aeration system shall be installed as designed and specified by a Certified Arborist

C. Paving / Hardscape and other soil compacting material that encroaches within the TPZ, should include an aeration system designed by a Certified Arborist

4.4.3 Conclusion

The proposed project, with the implementation of the above measures included in the project, would not result in any new significant impacts to biological resources that would not be reduced to a less than significant level. **(Less Than Significant Impact with Mitigation Incorporated)**

4.5 CULTURAL RESOURCES

4.5.1 Setting

A cultural resources assessment consisting of a field reconnaissance and literature review prepared by *Basin Research Associates* in 1991 and updated in 2005 did not identify any known cultural resources within the project area (Appendix C). The updated assessment concluded that the project area has a low to moderate potential for buried archaeological resources and that there are no known archaeological resources within or adjacent the project site. *Urban Programmers* prepared a Historical and Architectural Evaluation of structures over 50 years old as part of the addendum in 2005, and determined that none of the structures within the Butterfield Boulevard South Extension Alignment meet any of the criteria for listing on the California Register of Historic Places.

According to the City of Morgan Hill Archaeological Sensitivity Map, both the Watsonville/Monterey intersection and the southern portion of the Regional Detention Basin are located within an archaeologically sensitive area for buried historic resources as they are within the vicinity of West Little Llagas Creek.[3]

4.5.2 Environmental Checklist and Discussion

CULTURAL RESOURCES	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						1,2,8,9
1) Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	☐	☐	☐	☒	☐	
2) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☐	☒	☐	1,2,8,9
3) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	☐	☐	☐	☒	☐	1,2,8,9
4) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒	☐	1,2,8,9

The proposed changes to the project would not substantially increase the likelihood of impacting cultural resources. Although the project site includes areas designated by the City of Morgan Hill as being archaeologically sensitive, the proposed changes to the project (widening of Watsonville Road and related drainage modifications) would not require substantial new excavations in sensitive areas. The proposed changes therefore would not result in significant impacts to new cultural resources.

[3] City of Morgan Hill. *Archaeological Sensitivity Map*. April 2000.

Although not considered a new significant impact, the following measures identified in the City of Morgan Hill Municipal Code Chapter 18.75 will be included on all project plans and implemented during construction.

SM CR-1.1: This project may adversely impact undocumented human remains or unintentionally discover significant historic or archaeological materials. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply. If human remains are discovered, it is probable they are the remains of Native Americans.

- If human remains are encountered they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need to know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.

- Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.

- Surgical mask should also be worn to prevent exposure to pathogens that may be associated with the remains.

- In the event that known or suspected Native American remains are encountered or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow points, groundstone mortars and pestles), culturally altered ash-stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials, and historic structure remains such as stone-lined building foundations, wells or privy pits. Ground-disturbing project activities may continue in other areas that are outside the exclusion zone as defined below.

- An “exclusion zone” where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the Contractor Foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time or discovery, by the Monitoring Archaeologist (typically 25-50 ft for single burial or archaeological find).

- The exclusion zone shall be secured (e.g., 24 hour surveillance) as directed by the City or County if considered prudent to avoid further disturbances.

- The Contractor Foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:

    - The City of Morgan Hill Community Development Director
    - The Contractor's Point(s) of Contact
    - The Coroner of the County of Santa Clara (if human remains found)
    - The Native American Heritage Commission (NAHC) in Sacramento
    - The Amah Mutsun Tribal Band

- The Coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American the Coroner has 24 hours to notify the NAHC.

- The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD) from the Amah Mutsun Tribal Band. (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.)

- Within 24 hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose.

- Within 24 hours of their notification by the NAHC, the MLD may recommend to the City's community development director the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the Amah Mutsun Tribal Band may be considered and carried out.

- If the MLD recommendation is rejected by the City of Morgan Hill the parties will attempt to mediate the disagreement with the NAHC. If mediation fails then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

4.5.3 Conclusion

The proposed changes to the project would not result in new significant impacts to cultural resources. **(Same Impact as "Approved" Project)**

4.6 GEOLOGY AND SOILS

4.6.1 Setting

The project site is located in the southern Santa Clara Valley which is surrounded by the Santa Cruz Mountains to the west and the Diablo Mountain Range to the east. The valley floor area is filled with alluvial materials derived from the Diablo Range to the east, which overlies bedrock.

4.6.1.1 *Seismicity*

Morgan Hill is within Santa Clara County, which is part of the seismically active San Francisco Bay Area. It is classified as Zone 4, the most seismically active zone in the United States. An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the project site area. The degree of shaking is dependent on the magnitude of the event, the distance to its zone of rupture and local geologic conditions. The major earthquake faults in the area are the San Andreas (located ±10 miles to the west) and the Calaveras (located along the easterly edge of Morgan Hill). Other earthquake faults in the area include the Coyote Creek Fault and the Sargent Fault. According to County of Santa Clara Geologic Hazard Zones map, the project site is not located in a fault rupture hazard zone. [4]

Soil liquefaction is a phenomenon in which saturated, cohesionless soils undergo a temporary loss of strength during earthquake ground shaking. The project site is not located within a liquefaction hazard zone.[5]

4.6.1.2 *Soils*

Soils on the project site and in the immediate project area include Arbuckle Loam, San Ysidro Loam, and Pleasanton Loam. All of these soil types are listed as having moderate to high shrink-swell potential, although low to moderate permeability. The project site is not located within a landslide hazard zone.[6]

4.6.1.3 *Erosion and Sedimentation*

Arbuckle Loam, San Ysidro Loam, and Pleasanton Loam all have slight to moderate erosion potential depending on slope. Most of the project area is relatively flat, reducing erosion risk potential. Creek banks and other sloped areas within the project boundaries present a higher risk.

National Pollutant Discharge Elimination System

Regulations set forth by the EPA and State water Resources Control Board to fulfill the requirements of the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act include provisions that reduce the amounts of pollutants, such as sediment, in Stormwater runoff. These provisions are implemented through National Pollutant Discharge Elimination System (NPDES) permits. Locally, development projects over one acre in size must comply with the Small Municipal Separate Storm Sewer Systems (MS4s) NPDES permit issued to the City of Morgan Hill by the Central Coast Regional Water Quality Control Board as well as the statewide General Construction

[4] County of Santa Clara. *County Geologic Hazard Zones*. Map. December 1, 2009.
[5] County of Santa Clara. *County Geologic Hazard Zones*. Map. December 1, 2009.
[6] County of Santa Clara. *County Geologic Hazard Zones*. Map. December 1, 2009.

Permit. The methods used to achieve permit requirements vary from site to site, but generally include measures to reduce or avoid erosion and sedimentation during construction and grading and post-construction periods.

4.6.2 Environmental Checklist and Discussion

GEOLOGY AND SOILS	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:						
a) Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☐	☐	☒	☐	1,10,12
b) Strong seismic ground shaking?	☐	☐	☐	☒	☐	1,10,12
c) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒	☐	1,11
d) Landslides?	☐	☐	☐	☒	☐	1,10,12
2) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	☐	1,13
3) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒	☐	1,10,12
4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒	☐	1,13

GEOLOGY AND SOILS						
	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒	☐	1,13

4.6.2.1 *Seismicity and Soils Impacts*

The original geotechnical concerns for the project area remain severe ground shaking and the presence of soils with a moderate to high shrink-swell potential. The proposed changes to the project would not increase the severity or result in changes to the geologic impacts that were disclosed in the 1992 FEIR or 2005 Addendum. Standard engineering and design techniques will reduce the risk of damage to the proposed roadway and flood protection facilities resulting from expansive soils to a less than significant level.

4.6.2.2 *Erosion and Sedimentation Impacts*

The proposed project includes excavation, site grading, earthmoving, and other construction activities that could disturb and expose soils to erosive forces of wind and rain, which can result in off-site deposition of sediments. Construction and grading along West Little Llagas Creek may involve removal of vegetation and/or disturbance of surface soils which can create the potential for increased erosion and deposition of sediments within the waterway.

The proposed flood protection facilities include outfalls into West Little Llagas Creek at several locations and areas with the potential for water to overbank from channels which can result in erosion of surface soils and/or creek embankments.

The proposed project will be required to conform to erosion control measures in the *Best Management Practices* (BMPs) under the Small MS4s NPDES permit issued to the City of Morgan Hill by the Central Coast Regional Water Quality Control Board and requirements of the General Construction Permit. These standard measures would further reduce erosion and sedimentation during project construction.

Impact GEO-1: Construction of the proposed project could result in increased sedimentation or other water quality impacts during and after completion of the project. **(New Significant Impact)**

Mitigation and Avoidance Measures:

MM GEO-1.1: Prior to approval the following shall be completed to the satisfaction of the Director of Public Works:

- Storm drain calculations to determine detention pond sizing and operations.

- Plan describing how material excavated during construction will be controlled to prevent this material from entering the storm drain system.

- Water Pollution Control Drawings (WPCD) for Sediment and Erosion Control.

MM GEO-1.2: As required by the State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, construction activity resulting in a land disturbance of one (1) acre or more of soil, or whose projects are part of a larger common plan of development that in total disturbs more than one (1) acre, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Associated with Construction Activity (General Permit). To be permitted with the SWRCB under the General Permit, owners must file a complete Notice of Intent (NOI) package and develop a Storm Water Pollution Prevention Plan (SWPPP) Manual in accordance with Section A, B, and C of the General Permit prior to the commencement of soil disturbing activities. A NOI Receipt Letter assigning a Waste Discharger Identification (WDID) number to the construction site will be issued after the SWRCB receives a complete NOI package (original signed NOI application, vicinity map, and permit fee); copies of the NOI Receipt Letter and SWPPP shall be forwarded to the Building and Public Works Department review. SWPPP shall be made a part of the improvement plans.

The standards and specifications for BMPs in the SWPPP shall also meet Minimum Control Measures per current requirements for the City of Morgan Hill and County of Santa Clara under the NPDES Permit for Small MS4s.

MM GEO-1.3: Rock riprap and other appropriate erosion control measures will be installed along critical points of potential erosion from water flow, including at the outfalls into West Little Llagas Creek and along areas where the Butterfield Channel may overbank into surrounding land, south of the Regional Detention Facility.

4.6.3 Conclusion

The proposed changes to the project would not result in new significant geologic or seismic impacts. **(Same Impact as "Approved" Project)**

Erosion and sediment impacts associated with construction will be minimized through implementation of the mitigation measures described above. The proposed changes to the project will not result in any long-term erosion and sedimentation impacts. **(New Less Than Significant With Mitigation Incorporated)**

4.7 HAZARDS AND HAZARDOUS MATERIALS

4.7.1 Setting

Reported Contamination

The following discussion describes several properties within a half-mile radius of the project site that are known to have reported hazardous spills or releases, based on a review of the State Water Resources Control Board (SWRCB) listings.[7]

One-half mile north of the intersection of Watsonville/Monterey at 15975 Monterey Road is a hazardous spill site known as the Rutherford Property (Global ID: T0608502196). In October of 1985 a diesel spill prompted the removal of an on-site diesel storage tank, at which time the soil beneath the tank was found to be highly contaminated. The contamination plume was small, not reaching a monitoring well 80-feet away. Remediation began in 1987, after which periodic monitoring was conducted until the site was deemed clean and the case closed in 1993.

Approximately one-quarter mile north of the intersection of Watsonville/Monterey at 15670 Monterey Road is a hazardous spill site known as Morgan Hill CDF (SCVWDID: 09S3E34E01). The property is a South Santa Clara County Fire Department location, where in 1998 five underground diesel storage tanks were removed. Soil samples upon removal revealed soil contamination of 24 parts per million (ppm) Total Petroleum Hydrocarbons as Gasoline (TPHg), 67 ppm TPH as Diesel (TPHd), 0.065 ppm Benzene, 0.31 ppm Toluene, 0.10 ppm Ethylbenzene, 1.8 ppm Xylenes, 1.7 ppm Methyl tert-Butyl Ether (MtBE), and 17 ppm Total Lead. Periodic monitoring of the site has continued, although the extent of the spill is not currently known. Onsite wells are known to be contaminated and fluctuation in contamination concentration indicates possible need for future remediation.

Located adjacent the project site at the intersection of Watsonville/Monterey is a hazardous spill site known as Royal Oaks Mushroom (SCVWDID: 09S3E34N01f). The excavation of three underground storage tanks in 1993 found a release of up to 2,560 ppm TPHg and up to 7ppm benzene. Two hundred (200) cubic yards of contaminated soil was excavated and treated on-site. The overall release was localized in nature and there was a low severity of soil contamination. In 1996 the remediation and monitoring was considered complete and the case closed.

Other Hazards

The project site is not located within an airport land use plan or in the vicinity of a private air strip. The project site is not included in an emergency evacuation plan or located on or adjacent to an emergency evacuation route. There are no wildlands located near the project site.

[7] State Water Resources Control Board. *Geotracker*. December 16, 2009. http://geotracker.swrcb.ca.gov/

4.7.2 Environmental Checklist and Discussion

HAZARDS AND HAZARDOUS MATERIALS	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒	☐	1
2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐	☐	1,14
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	☐	1,14
4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐	☐	1,14
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	☐	1,15
6) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	☐	1,15
7) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	☐	1,2

HAZARDS AND HAZARDOUS MATERIALS						
	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
8) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒	☐	1,2

4.7.2.1 *Impacts Associated with Construction*

There is a closed leaking underground storage tank case near to the proposed realigned Watsonville/Monterey intersection (Royal Oaks Mushroom, SCVWDID: 09S3E34N01f). There are no active leaking underground storage tanks and the case is considered closed by the Water District with no established Site Management requirements.[8]

The proposed project includes some excavation and disturbance of native soils for site grading and other construction activities within the vicinity of the Royal Oaks SWRCB site. Although the original contamination was low in severity and remediation is considered complete, contaminated soil and/or groundwater could be encountered during construction.

The project includes the following measures to avoid potential impacts associated with localized fuel leaks and spills on the Royal Oaks Mushroom property.

AM HAZ–1.1: A Site Management Plan (SMP) for the project shall be implemented during construction activities that involve grading or excavation near potentially contaminated soil materials. The SMP includes protocols for handling suspect soils and groundwater, if encountered, during construction in the vicinity of the Royal Oaks Mushroom facility. The protocols identified in the SMP shall be printed on all construction documents. The following measures outlined in the SMP are included in the project to avoid hazards to the environment during construction.

- Prior to construction, information regarding the previous contaminant concentrations at the Royal Oaks Mushroom facility and location of potentially impacted soil and groundwater shall be provided to project contractors.

- A Health and Safety Plan, required for trenching activities, shall be prepared by project contractors. The Health and Safety Plan is a project-specific plan, prepared by each contractor working on a site

[8] Pullman, Nicole. Hazardous Materials Program Manager. County of Santa Clara. Personal Communication. January 21, 2010.

that describes safety measures to be followed during all phases of construction. The Health and Safety Plan shall provide general guidance in regards to environmental conditions, specifically near the Royal Oaks Mushroom facility. It is designed to protect the health and safety of construction workers and the public during the construction period.

- Prior to construction, the project contractor in conjunction with the City Public Works Department shall pre-designate an area on or near the Royal Oaks Mushroom facility for soil stockpiling in the event suspect soil is encountered.

- In the event suspect soil and/or groundwater is encountered, contractors shall immediately notify the City of Morgan Hill Public Works Department and County Department of Environmental Health. An evaluation of the extent of the contamination will be conducted. The City shall retain a qualified environmental professional to assist with segregation activities. The qualified environmental professional shall, at minimum, rely on visual observations, olfactory criteria, and an organic vapor meter to assist in segregating the soil. Suspect soil shall be stockpiled in the pre-designated area. Stockpiled soil shall be covered in conformance with the recommendations in the SMP.

- Representative soil samples shall be collected from the impacted soil stockpile by a qualified environmental consultant. Samples shall be analyzed at a state-certified laboratory for gasoline-range petroleum hydrocarbons and Benzene.

- Petroleum-impacted soil and/or groundwater shall be handled and disposed of in accordance with appropriate state and federal regulations and the recommendations in the SMP.

- Vehicles and construction equipment that contact potentially impacted soil shall be cleaned prior to contacting non-impacted soil and/or groundwater. Cleaning may include dry methods, such as brushing, scraping, or vacuuming. If the dry methods are not effective, wet methods (such as steam cleaning or pressure washing) may be used. Wash water shall be collected and appropriately disposed of by the contractor.

4.7.3 Conclusion

The project includes measures to avoid possible hazards associated with a closed fuel leak case. **(New Less Than Significant Impact)**

4.8 HYDROLOGY AND WATER QUALITY

4.8.1 Setting

The following discussion is based in part upon two drainage studies prepared by *MH Engineering Company*. Copies of these studies are provided in Appendix D and Appendix E of this Initial Study.

4.8.1.1 *Flooding and Drainage*

The overall project area is located within the Santa Clara Valley in the Uvas-Llagas Watershed.

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), both project sites are located within existing Flood Zones. Both areas are designated as (AE) Flood Zones, which represent areas at risk of flood inundation by a 100-Year Flood (also known as a 1% flood because of the annual chance of occurrence).[9] Areas subject to flooding are shown on Figure 11.

West Little Llagas Creek flows underneath the Watsonville/Monterey intersection from west of Watsonville Road and exits east from underneath Monterey Road. From here it continues downstream towards the planned Regional Detention Basin, where the creek is located south of the proposed detention basin boundary. The creek has been modified for flood control purposes in limited areas, including existing reinforced concrete box culverts (RCBC) underneath Watsonville Road and Monterey Road.

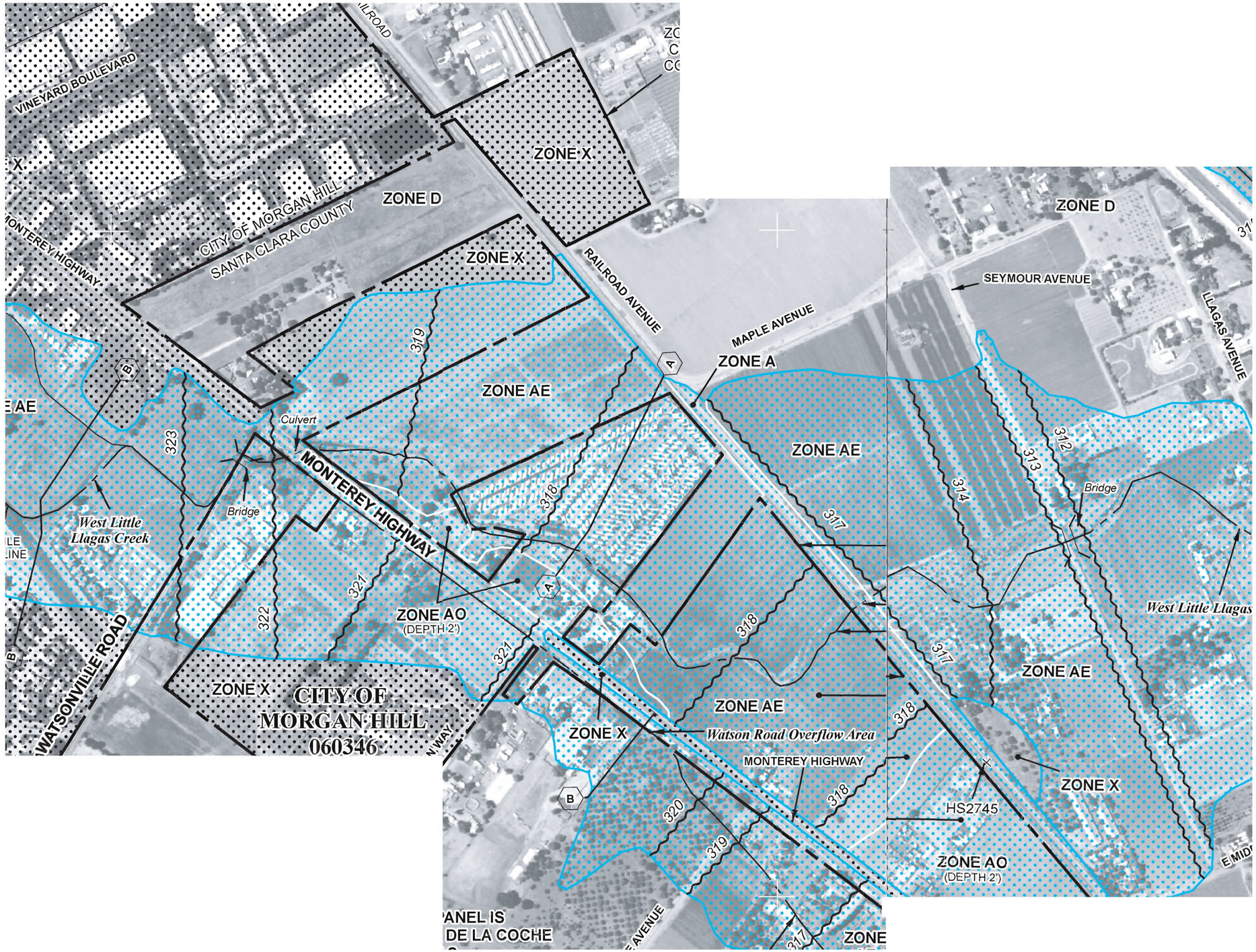
Currently, West Little Llagas Creek floods on an almost annual basis over Watsonville Road, closing the road. This is due to the limited capacity of the downstream culvert located underneath Monterey Road. During flood events the flow backs up at this culvert and eventually splits. Approximately half of the flow continues through the culvert and the other portion flows overland along the west side of Monterey Road, until this overland portion floods over Monterey Road and rejoins West Little Llagas Creek to the east. Further downstream West Little Llagas Creek encounters two other areas where flows split during storm events: where the creek crosses the Union Pacific Railroad tracks near the southern corner of the detention pond and where the creek crosses Seymour Avenue near the southwestern corner of the detention pond.

The Butterfield Channel, which handles storm water from a 1,608-acre drainage area including the Morgan Hill Ranch Business Park near Cochrane Road, parallels the existing Butterfield Boulevard southwards until crossing underneath Tennant Avenue where the channel dead-ends (Figure 12). This impasse causes local flooding during storm events until excess water can percolate/evaporate.

City of Morgan Hill Storm Drainage System

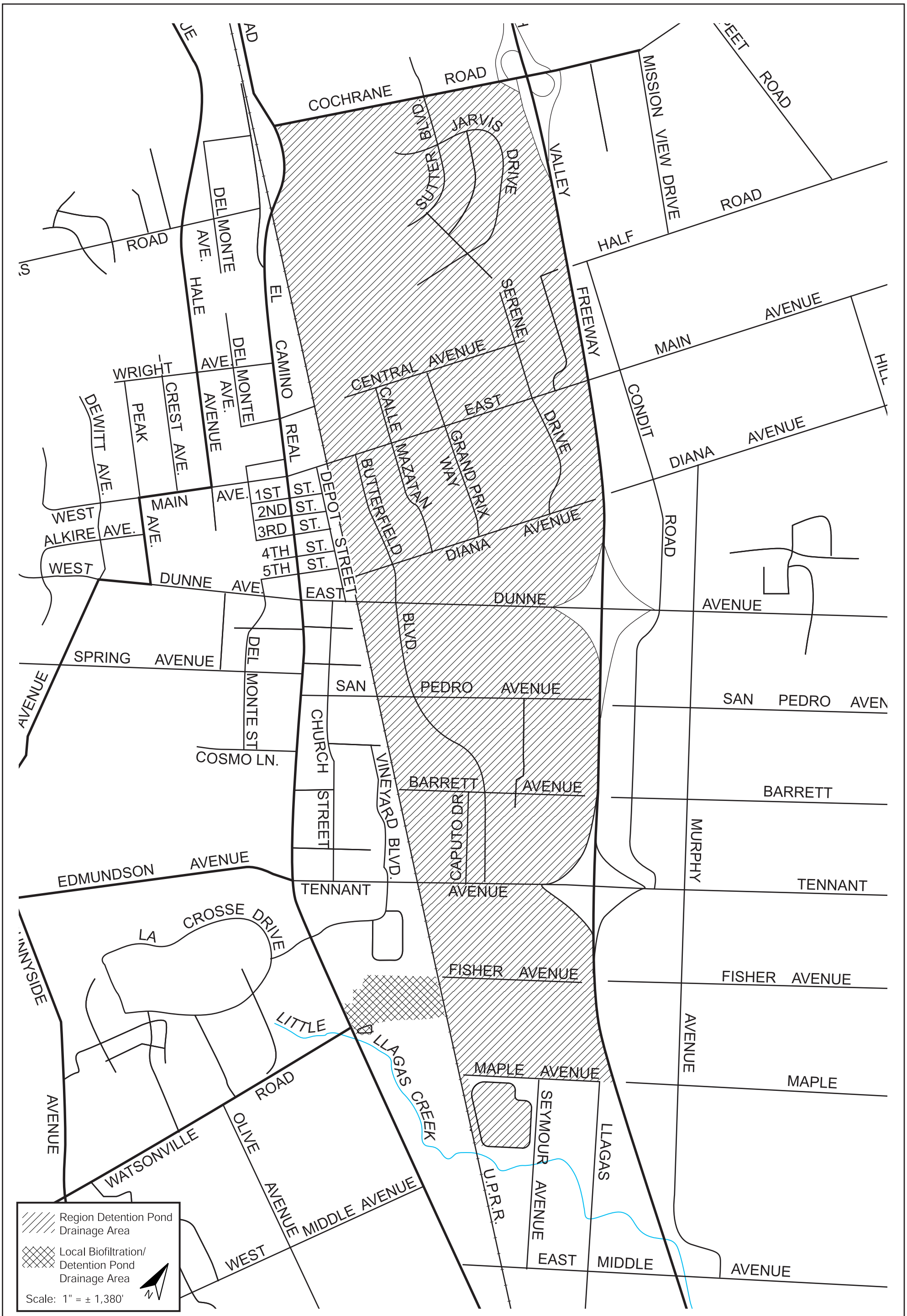
The project area is located within two separate City of Morgan Hill storm drainage basins: the Watsonville/Monterey intersection is located within the West Little Llagas Creek Basin, and the planned Regional Detention Basin area is located within the Llagas Creek Basin.[10] Surface water from the project area generally drains to West Little Llagas Creek, which flows to Llagas Creek and eventually drains to the Monterey Bay. Currently there are no City storm drainage pipelines or inlet

[9] Federal Emergency Management Agency. *Flood Insurance Rate Map City of Morgan Hill, California, Santa Clara County, Community-Panel Number 060346 0607 H*. May 19, 2009.
[10] City of Morgan Hill. *Storm Drainage System Master Plan*. January 2002.



FLOOD MAP

FIGURE 11



DRAINAGE AREAS

FIGURE 12

structures within the project area. Stormwater flows are conveyed in the open West Little Llagas channel, culverts under Watsonville Road and Monterey Road, and in a local drainage ditch adjacent to Watsonville Road.

The Butterfield Channel carries stormwater from a third drainage area, the Butterfield Drainage Basin which is located north of the Llagas Creek Basin.

Planned Flood Control Improvements

Future changes under the *Upper Llagas Creek Flood Protection Project* (also known as PL566) are planned for the area southwest of the Watsonville/Monterey intersection.[11] This project would extend an earthen channel southward that would act to reroute flood waters away from Monterey Road. These modifications would significantly reduce the watershed for the reach of West Little Llagas Creek in the vicinity of Monterey Road from the currently shown 5.6 square miles in the Federal Emergency Management Agency (FEMA) Flood Insurance Study.[12] The stormwater infrastructure at Watsonville/Monterey would then adequately handle 100-Year flood flows from this smaller drainage area without any flooding.

A one-mile diversion channel west of Monterey Road, across Watsonville Road, John Wilson Way, and Middle Avenue is currently in the planning and design stage. The Santa Clara Valley Water District and City of Morgan Hill plan to start construction after 2015.[13]

4.8.1.2 *Water Quality*

The project area is located within the Uvas-Llagas watershed, an area encompassing approximately 104-square miles, and the only watershed in Santa Clara County to drain to the Monterey Bay. Various land uses occupy this watershed, including agricultural lands, residential and commercial uses, and open space. Each of these land uses discharges different types of contaminants in varying amounts throughout the season, which can include nitrates, suspended sediments, and organic materials.

Regulatory Overview

Regulations set forth by the EPA and State Water Resources Control Board to fulfill the requirements of the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act include provisions that reduce the amounts of pollutants, such as sediment, in stormwater runoff. These provisions are implemented through National Pollutant Discharge Elimination System (NPDES) permits. Locally, development projects over one acre in size must comply with the Small Municipal Separate Storm Sewer Systems (MS4s) NPDES permit issued to the City of Morgan Hill by the Central Coast Regional Water Quality Control Board as well as the statewide General Construction Permit. The methods used to achieve permit requirements vary from site to site, but generally include measures to reduce or avoid erosion and sedimentation during construction and grading and post-construction periods.

[11] Santa Clara Valley Water District Website. *Upper Llagas Creek Flood Protection*. Accessed February 4, 2010. Available at:<http://www.valleywater.org/uploadedFiles/Services/FloodProtection/Projects/UpperLlagas/Upper%20Llagas%20Creek_fact%20sheet_final.pdf?n=4702>

[12] MH Engineering Company. *Drainage Study: Appendix D.* December 27, 2009.

[13] Gilroy Dispatch. *Property Needed to Divert Flooding.* January 25, 2010. Available at: <http://www.gilroydispatch.com/printer/article.asp?c=262654>

4.8.2 Environmental Checklist and Discussion

HYDROLOGY AND WATER QUALITY	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒	☐	1,2,16, 17
2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒	☐	1,2,16, 17
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site?	☐	☒	☐	☐	☐	1,2,16, 17
4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site?	☐	☐	☒	☐	☐	1,2,16, 17
5) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐	☐	1,2,13
6) Otherwise substantially degrade water quality?	☐	☐	☒	☐	☐	1,2,16, 17
7) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒	☐	1,2,16, 17

HYDROLOGY AND WATER QUALITY						
	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
8) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐	☐	1,2,16, 17
9) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒	☐	1,2,16, 17
10) Be subject to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒	☐	1,2,16, 17

4.8.2.1 *Drainage and Flooding Impacts*

The proposed changes to the project will not substantially increase the amount of impervious surfaces compared to the roadway improvements evaluated in the previous 1992 Final EIR and 2005 Addendum. Stormwater flows from new impervious surfaces were accounted for in the Drainage Study completed by MH Engineering (Appendix D).

Modifications to West Little Llagas Creek

The project proposes modifications to the section of West Little Llagas Creek which runs from west of Watsonville Road downstream where it exits eastward underneath Monterey Road. These modifications include: 1) grading the creek for approximately 300-feet west of Watsonville Road up to the existing box culvert under Watsonville Road 2) replacement of the current box culvert with a larger double-culvert under the widened road (approximately 100-feet), and 3) construction of a retaining wall along a 90-foot segment of the creek channel. A portion of the existing open creek channel between Watsonville and Monterey Roads will be removed to accommodate the new widened road and double-box culvert. The remaining section of open creek channel not being replaced, between Watsonville Road and Monterey Road, would be modified on the north bank to create a permanent vertical wall in-line with the edge of the widened roadway. The south bank will not be graded or modified opposite the retaining wall. The channel will remain open at this location to allow for split flows to continue; a portion going into the culvert under Monterey Road and a portion flowing overland parallel to the south side of Monterey Road.

To the east of Monterey Road the project proposes to extend the current double-culvert under Monterey Road approximately 75-feet and to grade and recontour the West Little Llagas Creek channel for approximately 300-feet.

The improvements along this reach of West Little Llagas Creek would reduce the flooding of Watsonville Road to a less frequent biennial event. Although localized flooding could continue to occur, implementation of the project would slightly reduce the frequency of flooding and would not result in a new significant flooding impact.

Providing additional capacity in the culvert under Monterey Road could reduce flooding on the south side of Monterey Road; however it also could result in flooding of residences in the recreational vehicle (R.V.) park downstream of Monterey Road. For this reason, an increase in capacity of the culvert under Monterey Road is not proposed by the project. As discussed previously, future changes to the West Little Llagas Creek channel upstream of the project site under the planned *Upper Llagas Creek Flood Protection Project* would further improve flooding conditions in the vicinity of the Watsonville Road and Monterey Road intersection by reducing the drainage area of this reach of West Little Llagas Creek. Once an upstream diversion of West Little Llagas Creek is in place, the culverts near the Watsonville/Monterey intersection would then adequately handle 100-year flood flows from the smaller drainage area.

Local Detention Basin

To accommodate the increased impervious surface-area the Butterfield Boulevard South Extension will add, a Local Detention Basin is proposed southeast of the new intersection (between Monterey Road and Butterfield Boulevard) (refer to Figure 4). Water from the portion of the Butterfield Boulevard extension south of the highpoint where it crosses the UPRR tracks will drain to this basin, as well as water from properties north of the extension (Figure 12). This proposed Local Drainage Basin is designed to reduce peak storm flows, generally retaining water for twenty-four hours. Afterwards, flows will drain into West Little Llagas Creek via an outlet into the proposed box culvert extension on the east side of Monterey Road. The Local Detention Basin is sized to accommodate 100-year flood flows (refer to Appendix E).

Regional Detention Basin and Butterfield Channel Extension

The proposed Regional Detention Basin is a facility designed to hold 80-acre feet of storm flows during a storm or flood. The capacity of the basin was determined based upon the size of the drainage area and an update of assumed future development per the 2008 General Plan (refer to Appendix D).

The existing Butterfield Channel, which handles water from the City's Butterfield Storm Drainage Basin, currently ends south of Tennant Avenue. The project proposes to extend the Butterfield Channel south from Butterfield Boulevard to the proposed detention basin, where it will border the western then southern side of the detention basin. Along the southern side of the detention basin the channel will parallel West Little Llagas Creek without directly connecting to it. This reach of the Butterfield Channel will become increasingly shallow until the flow reaches a 24-inch diameter outlet pipe at its terminus. The outlet pipe will drain into West Little Llagas Creek, near Seymour Avenue (refer to Figure 5). An inlet-weir along the western side of the detention basin will allow channel flows deeper than three feet to enter the detention basin, where water will be collected reducing peak storm flows downstream (refer to Figure 5). As water levels drop in West Little Llagas Creek, water will drain from the detention pond to the new creek outfall near Seymour Avenue via a second 24-inch diameter outlet pipe. During large storm events, water may remain in the regional detention basin for up to three days.

Flows from the Butterfield Channel, immediately south of the Regional Detention Basin, will overtop the channel bank and flow overland a short distance to the West Little Llagas Creek channel. This would occur where the channel capacity is only limited to the 24-inch diameter culvert release, near the terminus of the channel, during yearly storm flows. The Butterfield Channel would be reinforced with rip rap to reduce potential erosion at this location. Under existing conditions storm flows from

West Little Llagas Creek south of the proposed detention basin cause flooding and overtopping of Seymour Avenue. The proposed Butterfield Channel will start pushing flows over the intake weir into the Regional Detention Basin starting with storm events smaller than 2 year (50%) occurrence, limiting the overtopping of Seymour Avenue.

The proposed detention basin and channel improvements project will reduce the frequency of localized flooding near Tennant Avenue and provide 100-Year Flood capacity for the Butterfield Channel Drainage Area. Modifications to the Butterfield Boulevard South Extension roadway improvements and to the design of the Butterfield Channel near the Regional Detention Basin would not result in new flooding or drainage impacts.

4.8.2.2 *Water Quality*

As described in the 1992 Final EIR, implementation of roadway and flood protection improvements will increase the amount of impervious surfaces in the area and stormwater runoff from paved surfaces would contain pollutants that could affect the water quality of the streams and waterways into which they flow. Short-term water quality impacts, such as sedimentation of nearby waterways from construction related activities, could also occur during construction.

The 1992 Final EIR noted that conformance with NPDES regulations would avoid construction impacts and appropriate design of the detention basin would allow settling of pollutants prior to the release of storm water into the Llagas Creek watershed.

The proposed flood protection facilities include outfalls into West Little Llagas Creek at several locations and areas with the potential for water to overbank from channels which can result in erosion of surface soils and/or creek embankments.

As discussed in *Section 4.6.2.2: Erosion and Sedimentation Impacts*, the proposed project will be required to conform to erosion control measures in the *Best Management Practices* (BMPs) under the Small MS4s NPDES permit issued to the City of Morgan Hill by the Central Coast Regional Water Quality Control Board and requirements of the NPDES General Construction Permit. The Butterfield Channel and detention basins will be designed to filter contaminants from low flows before they are transported to primary streams. Implementation of post-construction BMPs will include check dams constructed periodically across the Butterfield Channel to slow the flow of water and allowing percolation and the settlement of suspended sediments before discharging into West Little Llagas Creek. Other BMPs will include the installation of filters at catch-basins and vegetation along slope embankments.

Impact HYD-1: Construction of the proposed project could result in increased sedimentation and/or other water quality impacts during construction and after completion of the project. **(New Significant Impact)**

Standard Measures

The following standard measures will be implemented to minimize water quality impacts associated with construction of roadway and flood protection improvements to a less than significant level.

SM HYD-1.1: As required by the State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, construction activity resulting in a land disturbance of one (1) acre or more of soil, or whose projects are part of a larger common plan of

development that in total disturbs more than one (1) acre, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Associated with Construction Activity (General Permit). To be permitted with the SWRCB under the General Permit, a complete Notice of Intent (NOI) package and develop a Storm Water Pollution Prevention Plan (SWPPP) Manual must be filed in accordance with Section A, B, and C of the General Permit prior to the commencement of soil disturbing activities. A NOI Receipt Letter assigning a Waste Discharger Identification (WDID) number to the construction site will be issued after the SWRCB receives a complete NOI package (original signed NOI application, vicinity map, and permit fee); copies of the NOI Receipt Letter and SWPPP shall be forwarded to the Public Works Department for review. The SWPPP shall be made a part of the improvement plans.

The standards and specifications for BMPs in the SWPPP shall also meet Minimum Control Measures per current requirements for the City of Morgan Hill and County of Santa Clara under the NPDES Permit for Small MS4s.

SM HYD-1.2: Prior to the "Notice to Proceed", the contractor will submit a sediment and erosion control plan to the City of Morgan Hill, Public Works Department. The plan shall be acceptable and conform to City standards to prevent significant sediment and soil erosion during construction and include the standards and guidelines found in the California Stormwater Quality Association, Stormwater Best Management Practice Handbook.

Mitigation and Avoidance Measures

MM HYD-1.3: Rock riprap and other appropriate erosion control measures will be installed along critical points of potential erosion from water flow, including at the outfalls into West Little Llagas Creek and along areas where the Butterfield Channel may overbank into surrounding land, south of the Regional Detention Facility.

4.8.3 Conclusion

The proposed changes to the project would not result in increased flooding. **(New Less Than Significant Impact)**

With the implementation of standard measures and mitigation measures included in the modified project, water quality impacts from construction and operation would be reduced to a less than significant level. **(New Less Than Significant Impact with Mitigation Incorporated)**

4.9 LAND USE

4.9.1 Setting

4.9.1.1 *Existing Land Uses*

The project site is located in the southern Santa Clara Valley, a broad alluvial plain bordered by the Santa Cruz Mountains and the Diablo Range. The project alignment extends through a predominantly agricultural area at the southern end of the City of Morgan Hill. Uses within the project area include vacant and cultivated fields, associated residential and farm buildings, commercial businesses (including Ace Hardware Store, Johnson Lumber, and U-Save Rockery), and an agricultural facility that produces mushrooms (refer to Figure 3). Transportation facilities include the UPRR tracks and two arterial streets (Monterey Road and Watsonville Road). Local serving roads that border or cross the project area include Railroad Avenue, Fisher Road and Seymour Road. West Little Llagas Creek crosses the project alignment near the Monterey/Watsonville intersection and borders the proposed Regional Detention Basin east of the UPRR. West Little Llagas Creek is an intermittent stream that conveys stormwater flows to the southeast and ultimately to the Pajaro River and Monterey Bay. Land uses along the currently proposed alignment have not substantially changed since the 1992 Final EIR was certified.

Land Uses Surrounding the Project

The land uses surrounding the project area are shown on Figure 3. Agricultural uses and rural residences border the project area on the east side of the UPRR tracks. West of the UPRR tracks, bordering land uses include vacant fields and light industrial uses.

4.9.1.2 *General Plan and Zoning*

The project area is located within the Urban Limit Line of the City of Morgan Hill and extends through properties within the city limits of Morgan Hill and portions of unincorporated Santa Clara County. The Butterfield Boulevard South Extension is shown as a future arterial roadway segment on the City's General Plan Land Use Diagram and in the General Plan Circulation Element. The land use designations and zoning for the properties within the project alignment are summarized in Table 4.9-1.

Table 4.9-1
General Plan and Zoning

Location	Assessor's Parcel Number	General Plan Land Use Designations		Zoning District	
		Morgan Hill	County of Santa Clara	Morgan Hill	County of Santa Clara
Approaches to Watsonville/ Monterey Intersection	779-04-001	Single Family Medium	Agricultural Medium Scale	---	Agriculture (A-20Ac)
	779-04-056	Single Family Medium	Agricultural Medium Scale	---	(A-20Ac)
	817-06-01	Industrial	---	Light Industrial	---
	817-06-02	Industrial	---	Light Industrial	---

Table 4.9-1 General Plan and Zoning					
Location	**Assessor's Parcel Number**	**General Plan Land Use Designations**		**Zoning District**	
		Morgan Hill	**County of Santa Clara**	**Morgan Hill**	**County of Santa Clara**
	817-06-004	Industrial	---	---	(A-20Ac)
Regional Detention Basin	825-06-034	---	Agricultural Medium Scale	---	(A-20Ac)
	825-06-035	---	Agricultural Medium Scale	---	(A-20Ac)
	825-06-038	---	Agricultural Medium Scale	---	(A-20Ac)

The Regional Detention Basin portion of the project is located within the San Martin Planning Area, which is a rural unincorporated community governed by the County Board of Supervisors. The existing County General Plan Designation is *Agricultural Medium Scale*. The existing County zoning for the Regional Detention Basin area is *Agricultural*.

4.9.1.3 *Santa Clara Valley Habitat Conservation Plan*

A Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP) is currently being prepared for the Santa Clara Valley. The Santa Clara Valley HCP/NCCP is a regional partnership between six local partners (the County of Santa Clara, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, and the Cities of San Jose, Gilroy and Morgan Hill) and three wildlife agencies (the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service (NMFS-NOAA Fisheries).[14] The HCP/NCCP process is anticipated to be completed in 2010.

The HCP/NCCP will address listed species and species that are likely to become listed during the plan's 50-year permit term. The species of concern include, but are not limited to, the California tiger salamander, California red-legged frog, western burrowing owl, Bay Checkerspot butterfly, and a number of species endemic to serpentine grassland and scrub.

[14] Santa Clara Valley HCP/NCCP Project. *2nd Administrative Draft Santa Clara Valley HCP/NCCP*. June, 2009. Available at: <http://www.scvhabitatplan.org/www/site/alias__default/292/administrative_draft_habitat_plan.aspx >

4.9.2 Environmental Checklist and Discussion

LAND USE	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Physically divide an established community?	☐	☐	☐	☒	☐	1,2,3
2) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒	☐	1,2,3
3) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒	☐	1,2,3

The 1992 Final EIR identified a significant and unavoidable land use impact for the entire Butterfield Boulevard corridor. This identified impact resulted from the displacement of residences and businesses and loss of agricultural land.

The modifications to the Butterfield Boulevard South Extension would not result in additional impacts to existing residences or businesses. Impacts to agricultural resources, as discussed in Section 4.2 of this Initial Study, would not be greater than those addressed in the 1992 Final EIR.

4.9.2.2 *Consistency with Plans and Policies*

The 1992 Final EIR addressed the conformance of the Butterfield Boulevard extension and flood protection facilities with the Morgan Hill General Plan, South County Joint Policy Plan, the County's Transportation Plan, the Bay Area Clean Air Plan, and the Llagas Creek Watershed PL-566 Program in place at the time. The following discussion focuses on the changes to the Butterfield Boulevard South Extension, Butterfield Channel, and creek outfalls and consistency with currently adopted plans. In addition, policies for the San Martin Planning Area in unincorporated Santa Clara County have been added to the County's General Plan since certification of the 1992 Final EIR.

Morgan Hill General Plan

The Butterfield Boulevard South Extension is a planned improvement shown on the City of Morgan Hill Land Use Diagram and in its Circulation Element. The proposed improvements are included for implementation in order to meet future circulation and storm water drainage needs based on buildout of land uses within the City and region. With mitigation measures included in the project to off-set impacts to riparian habitat and trees, the proposed modifications to the Butterfield Boulevard South Extension and flood protection facilities would be consistent with City policies designed to avoid environmental impacts.

County of Santa Clara General Plan

Modifications to the Butterfield Boulevard Plan Line

Proposed changes include a shift of Watsonville Road to the south and limited widening to accommodate new turning and through lanes. The shift would result in the removal riparian woodland vegetation along a relatively short segment of West Little Llagas Creek located between two arterial streets (Monterey Road and Watsonville Road). The County's General Plan includes several strategies and a number of policies that address impacts to riparian trees. The County's Rural Unincorporated Area Issues and Policies section of the General Plan (Book B) outlines resource conservation strategies that call for compensation for adverse human impacts, restoration of resources where possible and for monitoring the effectiveness of required mitigations. Relevant resource conservation policies in the County's General Plan include:

R-RC 4: For both public and private lands in rural unincorporated areas, the overall strategy for resource management and conservation shall be to:

a. Improve and update current knowledge of resources;

b. Emphasize pro-active, preventive measures;

c. Minimize or compensate for adverse human impacts;

d. Restore resources where possible; and,

e. Monitor the effectiveness of required mitigations.

R-RC 5: Public and private development projects shall be evaluated and conditioned to assure they are environmentally sound, do not degrade natural resources, and that all reasonable steps are taken to mitigate potentially adverse impacts.

R-RC 24: Areas of habitat richest in diversity, of particularly fragile ecological nature, or necessary for preserving threatened or endangered species should receive special consideration for preservation as open space and protection from development impacts. Examples include baylands and riparian areas, serpentine geology, and other critical habitat areas identified by local legislative bodies.

R-RC 31: Natural streams, riparian areas, and freshwater marshes shall be left in their natural state providing for percolation and water quality, fisheries, wildlife habitat, aesthetic relief, and educational or recreational uses that are environmentally compatible. Streams which may still provide spawning areas for anadromous fish species should be protected from pollution and development impacts which would degrade the quality of the stream environment.

R-RC 32: Riparian and freshwater habitats shall be protected through the following general means:

a. setback of development from the top of the bank;

b. regulation of tree and vegetation removal;

c. reducing or eliminating use of herbicides, pesticides, and fertilizers by public agencies;

d. control and design of grading, road construction, and bridges to minimize environmental impacts and avoid alteration of the streambed and stream banks (freespan bridges and arch culverts, for example); and

e. protection of endemic, native vegetation.

R-RC 33: Public projects shall be designed to avoid damage to freshwater and stream environments.

R-RC 37: Lands near creeks, streams, and freshwater marshes shall be considered to be in a protected buffer area, consisting of the following:

1. 150 feet from the top bank on both sides where the creek or stream is predominantly in its natural state;

2. 100 feet from the top bank on both sides of the waterway where the creek or stream has had major alterations; and

3. In the case that neither (1) nor (2) are applicable, an area sufficient to protect the stream environment from adverse impacts of adjacent development, including impacts upon habitat, from sedimentation, biochemical, thermal and aesthetic impacts.

R-RC 38: Within the aforementioned buffer areas, the following restrictions and requirements shall apply to public projects, residential subdivisions, and other private non-residential development:

a. No building, structure or parking lots are allowed, exceptions being those minor structures required as part of flood control projects.

b. No despoiling or polluting actions shall be allowed, including grubbing, clearing, unrestricted grazing, tree cutting, grading, or debris or organic waste disposal, except for actions such as those necessary for fire suppression, maintenance of flood control channels, or removal of dead or diseased vegetation, so long as it will not adversely impact habitat value.

c. Endangered plant and animal species shall be protected within the area.

***Discussion*:** As described in *Section 4.4 Biological Resources*, widening and realignment of Watsonville Road would impact approximately 0.1 acres of riparian woodland and alter the creek bank along roughly 700 linear feet of the West Little Llagas Creek channel. This riparian woodland is fragmented habitat between two arterial streets and woody vegetation that provides cover for wildlife is limited upstream and downstream of Watsonville Road where the creek extends through agricultural fields. The project includes mitigation measures to offset impacts to trees and riparian habitat in the long term. During construction, the project includes measures to limit sediment reaching the creek, avoid impacts to nesting birds and bats, and avoid work when flowing water is present (avoiding possible impacts to steelhead using streams in the Pajaro River watershed). The project would not impact habitat along a stream that is primarily in its natural state and mitigation is included in the project to reduce or avoid impacts to riparian resources to a less than significant level. The modifications to the West Little Llagas Creek, therefore, do not appear to substantially conflict with these policies.

Flood Improvement Facilities

The proposed Regional Detention Basin is within the San Martin Planning Area of unincorporated Santa Clara County. The County of Santa Clara General Plan notes that San Martin is a rural residential community surrounded by large farms and orchards that retains a pastoral country character. Relevant land use policies for the San Martin Planning Area in the County's General Plan as amended in 1999 include:

R-LU 114: San Martin is a rural unincorporated community governed by the County Board of Supervisors. Furthermore, San Martin should be viewed as a distinct geographic entity, unique within the rural unincorporated areas of Santa Clara County and having a unique rural identity and character within the South County area. Care should be taken to prevent premature commitment of land for uses which would restrict future options for the community. In order to best preserve future options for the San Martin community and environs, San Martin shall remain a rural community, predominantly nonurban and residential in nature.

R-LU 114.1: Policies, permit decision-making, and other matters subject to the discretion of the County and Board of Supervisors shall also take into consideration the desire and intent of the community to preserve and enhance the character, identity, and importance of the village core area of San Martin, being that area most central to the distinct identity of San Martin.

R-LU 141: Agricultural uses should be encouraged to continue.

R-LU 142: New development should be compatible with existing agricultural uses.

***Discussion*:** While the proposed Regional Detention Basin would remove an agricultural field from agricultural uses, the area would remain open in character. The proposed Regional Detention Basin and an associated outfall would be located in the northern portion of the San Martin Planning Area, outside of the area specifically designated for rural residential uses. Operation of the flood protection facility would not conflict with or be incompatible with other nearby agricultural uses. The

modifications to the planned flood protection facilities in this area do not appear conflict with these policies.

Draft Santa Clara Valley Habitat Conservation Plan

As discussed above, a HCP/NCCP is currently being prepared for the Santa Clara Valley, which includes the project area. Based upon a review of the current draft of the HCP/NCCP,[15] none of the species to be addressed in the HCP/NCCP are known to occur within the project impact areas and the project includes preconstruction surveys for burrowing owl to ensure that no nesting owls will be disturbed if they move onto the site prior to construction (refer to Section *4.4, Biological Resources*). The modifications to the Butterfield Boulevard South Extension, therefore, would not be inconsistent with the HCP/NCCP being prepared and are not inconsistent with an adopted HCP.

4.9.3 Conclusion

There would be no new land use impacts to housing or businesses from the proposed changes to the project. **(Same Impact as "Approved" Impact)**

With the inclusion of mitigation measures in the proposed project, modifications to the Butterfield Boulevard South Extension at Watsonville Road would not substantially conflict with plans or policies adopted to avoid environmental impacts. **(New Less Than Significant Impact with Mitigation Included in the Project)**

[15] Santa Clara Valley HCP/NCCP Project. *2nd Administrative Draft Santa Clara Valley HCP/NCCP*. June, 2009. Available at: <http://www.scvhabitatplan.org/www/site/alias__default/292/administrative_draft_habitat_plan.aspx >

4.10 MINERAL RESOURCES

4.10.1 Setting

The project site does not contain any known or designated mineral resources.

4.10.2 Environmental Checklist and Discussion

MINERAL RESOURCES	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒	☐	1,2
2) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒	☐	1,2

4.10.3 Conclusion

The proposed changes to the project would not result in a significant impact from the loss of availability of a known mineral resource. **(Same Impact as "Approved" Project)**

4.11 NOISE

4.11.1 Setting

A noise analysis was conducted for the approved project in the 1992 FEIR and determined that the project would result in significant unavoidable noise impact due to increased noise levels along the roadway alignment. Noise mitigation measures identified in the 1992 FEIR included the construction of soundwalls along sections of the project, although mitigation measures were not feasible or practicable in all areas. No soundwalls are proposed within the vicinity of the Watsonville/Monterey intersection. The closest existing sensitive receptors to the proposed roadway extension are the residences at 15520 and 15540 Monterey Road, located north of the proposed roadway alignment. Sound mitigation measures are not feasible at this location given the proximity of the residences to the approved roadway.

Since the completion of the 1992 FEIR nearby sensitive receptors (schools, churches) have been constructed. The nearest school (the private Oakwood Country School) is located approximately one-quarter mile southeast of the Watsonville/Monterey intersection. The nearest public school (Paradise Valley/Machado Elementary School) is located approximately one-half mile west of the Watsonville/Monterey intersection. The Bethel Baptist Church is located approximately three-quarters of a mile northeast of the Watsonville/Monterey intersection along Tennant Avenue.

4.11.2 Environmental Checklist and Discussion

NOISE	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project result in:						
1) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒	☐	1,2,18
2) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒	☐	1,2,18
3) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒	☐	1,2,18
4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒	☐	1,2,18

NOISE						
	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project result in:						
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	☐	1,2,18
6) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	☐	1,2,18

Compared to the approved project, the proposed changes will not significantly increase noise levels in the project area during construction or operation of the new roadway. The shift of Butterfield Boulevard southward increases the distance between the roadway and residences (15520 and 15540 Monterey Road) to the north, decreasing noise levels. Other changes to the proposed project will not result in significant changes in noise levels from construction or vehicle traffic.

As stated previously, there are sensitive noise receptors within the vicinity of the project area, however given the distance between the location of the sensitive receptors and construction activities at the project site, the proposed changes to the project will not significantly increase noise levels beyond previously identified impacts.

4.11.3 Conclusion

The proposed changes to the project will not result in any new significant impacts from noise levels in the project area. **(Same Impact as "Approved" Project)**

4.12 POPULATION AND HOUSING

4.12.1 Setting

Two residences are located on the east side of Monterey Road and north of the proposed Butterfield Boulevard extension.

Most of the Regional Detention Basin area is agricultural land although there is an existing residence located at the corner of Seymour and Maple Avenue (Figure 3).

In 1977, Morgan Hill first adopted the Residential Development Control System (RDCS) through voter initiative Measure E. An amended version of this growth management system, Measure P, was approved by voters in 2004 to extend through 2020. A part of the General Plan, the RDCS regulates growth by limiting the number of new homes approved each year and establishes a population ceiling until the year 2020.

4.12.2 Environmental Checklist and Discussion

POPULATION AND HOUSING	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒	☐	1,2
2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐	1,2
3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐	1,2

The proposed changes to the project will not impact existing housing. The proposed changes, widening of Watsonville Road and construction of creek outfalls for the detention basin, will not induce substantial population or employment growth or displace housing or people. The proposed Regional Detention Basin would be located around an existing residence and not disturb existing structures used as housing.

4.12.3 Conclusion

Implementation of the proposed changes to the project would not result in population or housing impacts. **(Same Impact as "Approved" Project)**

4.13 PUBLIC SERVICES

4.13.1 Setting

Fire Service

The City of Morgan Hill contracts for fire and emergency medical services with the Santa Clara County Fire Department. The City has two fire stations: 1) El Toro Fire Station, located at 18300 Old Monterey Road and 2) Dunne Hill Fire Station, located at 2100 East Dunne Avenue.

Police Service

Police service is provided to the project site by the City of Morgan Hill Police Department located at 16200 Vineyard Boulevard.

Schools

The project site is located within the Morgan Hill Unified School District. The Morgan Hill Unified School District has 10 elementary schools, two middle schools, two comprehensive high schools, one continuation high school, and a community adult school. The nearest school in the Morgan Hill Unified School District is one-half mile away.

The nearest school site is the private Oakwood Country School, located on John Wilson Way south of the project. The school is approximately a quarter-mile from the Monterey/Watsonville Road intersection. The school serves Pre-Kindergarten to 9th Grade students.

Parks

The City of Morgan Hill currently owns approximately 150 acres of parks and recreational facilities including two community parks, two neighborhood parks, two neighborhood/school parks, and 14 mini-parks.

In addition to parks, the City owns special use recreational facilities. These facilities include the Morgan Hill Aquatics Center, Centennial Recreation Center, Community and Cultural Center, and Outdoor Sports Center. School facilities are also available for use after school hours and on weekends.

Morgan Hill residents also utilize county and state parks. These parks include Silveira Park at the southern end of the City, the Coyote Creek park chain to the north, and Henry Coe State Park to the east.

4.13.2 Environmental Checklist and Discussion

PUBLIC SERVICES	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
Fire Protection?	☐	☐	☐	☒	☐	1,2
Police Protection?	☐	☐	☐	☒	☐	1,2
Schools?	☐	☐	☐	☒	☐	1,2
Parks?	☐	☐	☐	☒	☐	1,2
Other Public Facilities?	☐	☐	☐	☒	☐	1,2

Fire and Police Service

The proposed changes to the project, widening of Watsonville Road and construction of creek outfalls for the detention basin, would not substantially increase the demand for fire or police services.

Schools

The proposed changes to the project, widening of Watsonville Road and construction of creek outfalls for the detention basin, would not generate any students and, therefore, would not require the construction or expansion of local school facilities.

Parks

The proposed changes to the project, widening of Watsonville Road and construction of creek outfalls for the detention basin, would not substantially increase the use of parks in the project area.

4.13.3 Conclusion

The proposed changes to the project would not result in significant impacts on the physical environment resulting from increased demand for public facilities or services. **(Same Impact as "Approved Project")**

4.14 RECREATION

4.14.1 Setting

The City of Morgan Hill currently owns approximately 150 acres of parks and recreational facilities including two community parks, two neighborhood parks, two neighborhood/school parks, and 14 mini-parks. There are no parks in the immediate vicinity of the project area. Paradise Park and Morgan Hill Community Park are located within walking distance (approximately ½ mile) of the project area.

The City also owns, or in the process of planning and designing, special use facilities for recreational purposes. These facilities include the Morgan Hill Aquatics Center, Centennial Recreation Center, Community and Cultural Center, and the Outdoor Sports Center.

4.14.2 Environmental Checklist and Discussion

RECREATION						
	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒	☐	1,2
2) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒	☐	1

The proposed project would not substantially increase the population or number of employees in the City of Morgan Hill or otherwise increase the use of existing neighborhood and regional parks or other recreational facilities.

4.14.3 Conclusion

The proposed changes to the project would not result in significant impacts to recreational facilities. **(Same Impact as "Approved" Project)**

4.15 TRANSPORTATION

4.15.1 Setting

The traffic analysis completed for the 1992 FEIR concluded that the extension of Butterfield Boulevard would generally improve traffic conditions in the project area, especially along Monterey Road.

4.15.2 Environmental Checklist and Discussion

TRANSPORTATION/TRAFFIC						
	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio of roads, or congestion at intersections)?	☐	☐	☐	☒	☐	1,2
2) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒	☐	1,2
3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒	☐	1,2
4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	☐	☐	☐	☒	☐	1,2
5) Result in inadequate emergency access?	☐	☐	☐	☒	☐	1,2
6) Result in inadequate parking capacity?	☐	☐	☐	☒	☐	1,2
7) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒	☐	1,2

The project proposes widening of Watsonville Road at Monterey Road to accommodate one left, two through, and one shared right turn lane. The roadway also would be shifted to line up with the new Butterfield Boulevard Extension (Figure 4).

Compared to the previously approved project addressed in the 1992 FEIR and 2005 Addendum, the changes to the proposed project will not adversely affect traffic operations in the project area. The widening of Watsonville Road will generally improve roadway operations. The changes are proposed to serve existing and planned future development and, therefore, will not increase vehicle traffic. For these reasons, the proposed changes to the project will not increase the severity of previously disclosed transportation impacts or result in unidentified transportation impacts.

Traffic Impacts/Street Closures During Construction

Prior to the start of construction the contractor will prepare a Traffic Control Plan to be approved by the Public Works Department. Completion of the project will require temporary lane or roadway closures for construction or delivery of materials. However, except for rare occasions, roadways will not be shutdown entirely. Any street closures and/or detours will be approved by a City Engineer and coordinated with the Morgan Hill Police Department.

The existing Watsonville Road will remain open during the majority of construction, although temporary lane or road closures will be necessary in order to conform the new construction to the existing roadway. This may occur in several 24-hour periods spaced over several months.

North of the Watsonville/Monterey intersection, the Butterfield Boulevard southern extension will bisect Fisher Avenue (Figure 3). A temporary detour along the eastern side of Butterfield Boulevard from Railroad Avenue will provide access to the homes along Fisher Avenue. Once the Butterfield Boulevard extension is complete the detour will be removed as the new roadway will provide access to these homes. Fisher Avenue west of Butterfield Boulevard will be converted to a cul-de-sac while retaining access to Railroad Avenue.

4.15.3 Conclusion

The proposed changes to the project would not result in any new significant transportation impacts. **(Same Impact as "Approved" Project)**

4.16 UTILITIES AND SERVICE SYSTEMS

4.16.1 Setting

The following discussion is based on the City of Morgan Hill's *Water System Master Plan, Sewer System Master Plan, and Storm Drainage System Master Plan* (January 2002).

Water Service

The City of Morgan Hill provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's water system facilities include 17 groundwater wells, 10 potable water storage tanks, 10 booster stations, and over 160 miles of pressured pipes ranging from two to 24 inches in diameter. The City's water distribution system meets the needs of existing customers. The City has planned and constructed water projects in conjunction with new street construction in anticipation of future growth and water needs.

Ten-inch or greater water mains are located parallel both Watsonville Road and Monterey Road in the vicinity of the project.

Sanitary Sewer System

The City of Morgan Hill sewer collection system consists of approximately 135 miles of six-inch through 30-inch diameter sewers, and includes 15 sewage lift stations and associated force mains. The system also consists of trunk sewers, which are generally 12-inches in diameter and larger, that convey the collected wastewater flows through an outfall that continues south to the Wastewater Treatment Facility (WWTF) in Gilroy. The WWTF is jointly owned by the cities of Gilroy and Morgan Hill. The City's existing sewer collection system meets the needs of existing customers. The City has planned and constructed sewer facilities in conjunction with new street construction in anticipation of future growth and sewage needs.

Two sewer lines cross at the Watsonville/Monterey intersection of the project site: a 21-inch line parallel to Monterey Road known as the Railroad-Monterey Trunk and a 10-inch line parallel Watsonville Road terminating at the Butterfield/Monterey intersection project site.

Storm Drain System

The City of Morgan Hill's storm drainage system consists of a combination of curb and gutter facilities, curb inlets, underground pipelines, and bubblers that drain into detention basins or to the nearest creek. The project site is within the Uvas-Llagas Watershed that drains to Monterey Bay. The City's current storm drainage system in the project vicinity does not meet existing drainage needs and is subject to chronic flooding. The closest storm drains are located in Watsonville Road, near the intersection of Watsonville Road and Calle Sueno (Figure 4). Existing storm drains are also located along Tenant Avenue, and an existing retention basin is located on Concord Circle (adjacent and west of the railroad).

There is no maintained storm drain system in the project area within unincorporated Santa Clara County. Stormwater in these areas flows overland to local drainage ditches and/or creeks

Solid Waste

Recology South Valley provides solid waste and recycling services to the businesses and residents of the cities of Morgan Hill and Gilroy. Waste is disposed of at the Johnson Canyon landfill for the City of Morgan Hill. GreenWaste Recovery provides solid waste and recycling services to the businesses and residents of Unincorporated South Santa Clara County.

4.16.2 Environmental Checklist and Discussion

UTILITIES AND SERVICE SYSTEMS	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
Would the project:						
1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒	☐	1,2
2) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒	☐	1,2
3) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	☐	1,2
4) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒	☐	1,2
5) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒	☐	1,2
6) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒	☐	1,2
7) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒	☐	1,2

Solid Waste

The proposed changes to the approved project would not significantly increase or change the demand or capacity of existing solid waste systems; therefore, the project would not result in new solid waste system impacts.

Storm Drain System

Storm drains will be installed in the extension of Butterfield Boulevard and Stormwater conveyed to either the new Butterfield Channel or the new Local Detention Basin near Monterey Road. Runoff from the modified Watsonville Road would be conveyed to the West Little Llagas Creek by way of an adjacent drainage ditch and storm drains.

As discussed in Section *4.8 Hydrology*, the proposed changes to the project would generally improve the existing storm drain system and drainage conditions within the vicinity of the project area. Therefore, the project would not result in a new storm drain system impacts.

Sanitary Sewer System

In order to meet sewer requirements for planned industrial development, new sanitary sewer mains are proposed within the project area and nearby vicinity.[16] These include extending a 12-inch sanitary sewer main east of the Watsonville/Monterey intersection along the Butterfield Boulevard south extension. This sewer main would continue north along Railroad Avenue then turn east and stub out at Fisher Avenue. The proposed sewer main will not significantly impact the project.

The proposed changes to the approved project would not increase or change the demand or capacity of existing sanitary sewer systems; therefore, the project would not result in new sanitary sewer system impacts.

Water Service

In order to meet fire flow requirements for planned industrial development, new water mains are proposed within the project area and nearby vicinity.[17] These include extending a 12-inch water main along the Butterfield Boulevard extension from an existing 12-inch main at Tenant Avenue to an existing 10-inch water main at Watsonville Road. Also proposed is a new 12-inch water main along Fisher Avenue east of Railroad Avenue, which will narrow to 8-inches after crossing underneath the Butterfield Boulevard extension. These proposed water mains will not significantly impact the project.

The proposed changes to the approved project would not significantly increase or change the demand or capacity of existing water service systems; therefore, the project would not result in new water service system impacts.

[16] City of Morgan Hill. *Preliminary Butterfield Boulevard Extension Hydraulic Analysis*. February 2010.
[17] City of Morgan Hill. *Preliminary Butterfield Boulevard Extension Hydraulic Analysis*. February 2010.

4.16.3 Conclusion

The propose changes to the project would not result in any significant impacts to utilities or service systems. **(New Less Than Significant Impact)**

4.17 MANDATORY FINDINGS OF SIGNIFICANCE

4.17.1 Environmental Checklist and Discussion

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than "Approved Project"	Information Source(s)
1) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	☐	1,2,18
2) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒	☐	1,2,18
3) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒	☐	1,2,18

With the implementation of the mitigation and avoidance measures included in the project and described in the specific sections of this report (refer to *Section 4.0 Environmental Setting, Checklist, and Discussion of Impacts*), on pages 11-82 of this Initial Study, the proposed modifications to the Butterfield Boulevard South Extension project would not result in significant environmental impacts.

Cumulative impacts to agricultural resources identified in the 1992 FEIR would not be substantially changed under the proposed revisions to the Butterfield Boulevard South Extension improvements.

Therefore, the project would not result in significant impacts, result in impacts that are cumulatively considerable, or substantially adversely affect human being indirectly or directly.

Checklist Sources

1. CEQA Guidelines – Environmental Thresholds (Professional judgment and expertise and review of project plans).

2. City of Morgan Hill General Plan.

3. City of Morgan Hill, Zoning Ordinance.

4. Santa Clara County, *Important Farmlands Map,* 2008.

5. Bay Area Air Quality Management District, *CEQA Guidelines,* Revised 1999.

Butterfield Boulevard Extension Biological Resources Assessment, WRA, Inc., January 2010.

7. Butterfield Boulevard Extension Preliminary Section 404 Determination, January 2010.

Cultural Resources Assessment, Basin Research Associates, 2005.

Historical and Architectural Evaluation, Urban Programmers, 2005.

Pacific Geotechnical Engineering, *Generalized Geologic Map, Geology, Geologic and Geotechnical Hazards Study, City of Morgan Hill,* October 1993.

11. Pacific Geotechnical Engineering, *Generalized Hydrogeologic and Liquefaction Potential Map of Valley Floor Terrain, City of Morgan Hill,* December 1991.

12. County of Santa Clara, County Geologic Hazard Zones, December 1, 2009.

13. United States Department of Agriculture, *Soils of Santa Clara County*, June 1968.

Cortese List.

15. Airport Land Use Commission, *Land Use Plan for Areas Surrounding Santa Clara County Airports*, September 1992.

Drainage Study, MH Engineering Company, December 2009.

17. Monterey-Butterfield Detention Basin Study, 2009.

Sutter Boulevard Extension & Flood Protection Facilities Final EIR, 1992.

Butterfield Boulevard & Channel Extension Addendum to an EIR, 2005.

SECTION 5 REFERENCES

Airport Land Use Commission. *Land Use Plan for Areas Surrounding Santa Clara County Airports*. 1992.

Bay Area Air Quality Management District. *CEQA Guidelines*. 2009.

California Department of Conservation. *Santa Clara County, Important Farmlands Map*. 2008.

City of Morgan Hill. *2025 General Plan*. July 2001.

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City of Morgan Hill. *Sewer System Master Plan*. January 2002.

City of Morgan Hill. *Storm Drainage System Master Plan*. January 2002.

City of Morgan Hill. *Water System Master Plan*. January 2002.

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Federal Emergency Management Agency. *Flood Insurance Rate Map City of Morgan Hill, California, Santa Clara County, Community-Panel Number 060346 0607 H*. May 19, 2009.

United States Department of Agriculture. *Soils of Santa Clara County Map*. June 1968.

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